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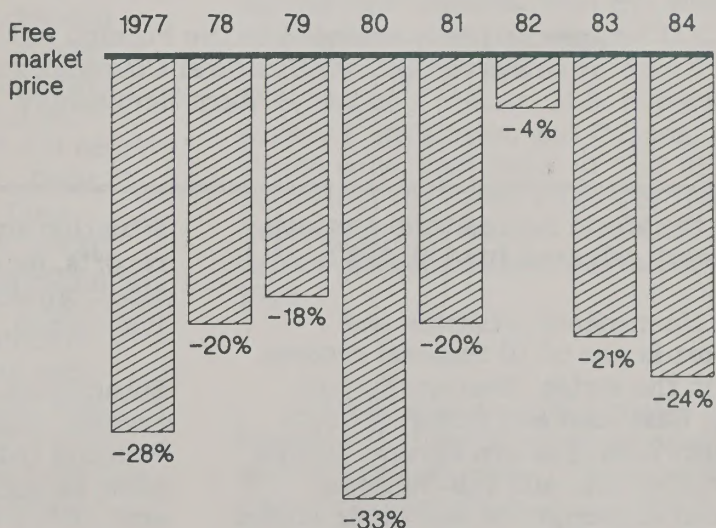
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# Western Hemisphere

## Situation and Outlook Report

**Producer Price Distortions for  
Brazilian Soybeans**





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## SUMMARY

Economic progress stagnated in the Western Hemisphere during 1986 because of a slowdown in gross domestic product growth. A few countries showed signs of recovery, but for most of the region domestic demand remained depressed and investment unchanged. Even those economic improvements noted for the region represented only partial recovery to levels reached earlier in the decade. Mexico's growth actually declined 3.8 percent, while Canada's slowed from 4.0 to 3.3 percent. Growth elsewhere was mixed, with 15 countries registering higher growth rates than in 1985 and 11 countries showing lower growth rates. Brazil and Peru led the region, each with growth rates exceeding 8 percent. Inflation was down in 1986, but export prices (except for coffee) continued depressed. The drop in oil prices hurt the region's oil exporters but provided some relief for oil-dependent countries.

On the positive side, international interest rates declined, and some progress has been made on easing the region's debt. However, debt servicing continues to have serious implications for the region's future growth and development.

Agricultural output fell in 1986, mainly because of weather-related declines in Argentina, Brazil, and Mexico. Production levels in Latin America were about 4 percent below 1985 and slightly above the longrun growth trend of 2.8 percent. In Canada, output was up 11 percent over 1985 and nearly 13 percent above the longrun trend. Only 11 countries in the region had greater farm production than in 1985. Argentina, Brazil, and Mexico, all major agricultural producers, had production declines of 7, 9, and 5 percent, respectively. Per capita food production declined in 1986, and that drop along with strong population growth and crowded urban areas will keep the pressure on governments to provide food at affordable prices. Production of most commodities declined, except for wheat, bananas, pork, and poultry.

The region's trade surplus decreased as exports dropped and imports increased. The value of exports dropped nearly 15 percent in 1986 as a 13-percent fall in prices combined with a 2-percent drop in volume. The region continued to be a net exporter of agricultural products. Exports of most major farm commodities were down in 1986 and may decline again in 1987. Imports continued to grow for the third straight year. Most major commodity imports (wheat, sorghum, sugar, soybeans, soybean meal, and soybean oil) were down from 1985. Rice and corn imports were higher in 1986.

U.S. farm exports to the Western Hemisphere were \$5.2 billion in 1986. Although 10 percent below the previous year, exports might have been lower if not for U.S. Government efforts to expand trade. U.S. agricultural exports to the region accounted for 20 percent of total U.S. exports. Grains and feeds were the main U.S. farm exports, at \$1.5 billion, accounting for about 30 percent of the total. Oilseeds and products, at \$1.0 billion, made up an additional 20 percent. The principal markets were Canada, which took \$1.5 billion, Mexico, which imported \$1.1 billion, and the Caribbean, at \$800,000. The United States obtains nearly half its agricultural imports from the Western Hemisphere, and the value of U.S. imports from the region rose more than 9 percent in 1986 to \$10.4 billion. U.S. imports came mostly from Mexico and Canada, at \$2.0 billion each, and Brazil at \$1.8 billion. Coffee accounted for about a third of the total imports at \$3.3 billion. The U.S. farm trade deficit with the region increased 40 percent in 1986.

In this issue several articles examine factors affecting Western Hemisphere agriculture and trade. These include foreign debt, Brazilian policies, and the Caribbean Basin Initiative.



## GENERAL ECONOMY

### *Canada*

A strong economy is expected in 1987 and 1988, but issues such as tax reform and the outcome of free trade negotiations with the United States may have a major impact on the Canadian dollar, interest rates, and growth. Additional downside risks arise from possible further U.S. trade action against Canadian exports. Tentative predictions are as follows:

- o Gross Domestic Product (GDP), at C\$505 billion in 1986, is expected to grow at about the same rate in 1987 and 1988, that is, at a real rate of 3.3 percent.
- o Business capital spending dropped in 1986, as a rise of 8 percent in non-resource investment was more than offset by a 20-percent decline in the resource sector, mainly from the plunge in oil prices. Currently, investors are being encouraged by higher Canadian interest rates relative to the U.S. and Eurodollar markets.
- o Trade was a drag on the economy last year, with export volumes rising only 3 percent while imports rose 5 percent. Prices were depressed, and the surplus of goods traded dropped to C\$10 billion from 1985's C\$17.5 billion. The deficit in overall transactions went to C\$8.8 billion from C\$600 million. Export volume should pick up in response to stronger U.S. growth and higher export prices.
- o Employment is forecast to rise about 2 percent in 1987 and 1988. That would move the jobless rate to 9 1/4 percent this year (from 9.6 percent in 1986), and to 8 1/2 percent in 1988.
- o Inflation will move up about 4 to 5 percent. Commodity prices are still weak, and unemployment is high enough to keep wage increases modest.
- o Prospects for the Canadian dollar are brighter since it appreciated about 5 percent against the U.S. dollar in the first quarter of 1987.

### *Mexico*

Although not the poorest performance since the 1982 financial crisis, Mexico's economic growth declined by about 3.8

percent in 1986. Sharply reduced petroleum export revenues were by far the most important cause.

PEMEX (state-owned petroleum company) revenues were off 40 percent from 1985, in real terms. Increased Government deficit spending was not enough to reverse the economic slide, but, instead, tended to foster credit shortages and rising prices. The average cost of credit rose 45 percent, and annual inflation hit a record 106 percent. The public sector deficit approached 16 percent of GDP, up from 10 percent in 1985.

A major consequence of the economic stagnation was the decline in domestic demand. Unofficially in 1986, unemployment was near 18 percent and underemployment in the range of 30-40 percent. The poor economic performance could not create the additional 800,000 plus new jobs required to meet Mexico's population growth, around 2.5 percent per year. Another fatality has been workers' earning power, which has suffered a 40-percent decline in real terms since 1982. Today, the average minimum wage is about \$3 per day.

Rising real prices have also eroded consumers' purchasing power. To reduce Government expenditures, consumer subsidies for basic food staples, utilities, and transportation were reduced in 1986, causing those prices to rise faster than non-price-controlled goods and services.

The recently approved foreign loan package of \$12-14 billion should provide fresh capital and allow greater public investment during 1987 without heavy domestic borrowing. This would ease the tight domestic credit market and provide greater access for private borrowers. Government investments could also help increase employment levels and raise real wages, but temporary monetary and fiscal programs will be required to avoid inflationary pressures in 1987. Government revenues will also be enhanced by increased petroleum earnings. International petroleum prices have improved in recent months, and Mexico's crude oil prices in 1987 should be well above last year's \$12-a-barrel average.

### *Central America*

In 1986, the evolution of economic activity in the Central American countries



Central America: Main Economic Indicators, 1986 1/

| Country     | Growth Rates |         |       | Trade Fob     |         | External     |
|-------------|--------------|---------|-------|---------------|---------|--------------|
|             | GDP          |         |       | \$US Millions |         | Debt         |
|             | Total        | Per Cap | CPI   | Exports       | Imports | \$US Billion |
| Costa Rica  | 3.0          | 0.4     | 13.8  | 1,070         | 1,020   | 4.0          |
| El Salvador | -0.5         | -1.8    | 32.4  | 800           | 970     | 2.1          |
| Guatemala   | 0.0          | -2.8    | 41.7  | 1,120         | 970     | 2.5          |
| Honduras    | 2.0          | -1.2    | 4.1   | 970           | 990     | 2.9          |
| Nicaragua   | 0.0          | -3.1    | 777.6 | 250           | 820     | 5.3          |
| Panama      | 3.0          | 0.6     | 0.1   | 2,420         | 2,520   | 6.5          |

1/ Preliminary figures.

Source: Economic Commission for Latin America and Caribbean (ECLAC).

continued to be unsatisfactory. Although the region's GDP grew by 1.6 percent in 1986, the living conditions in most of these countries continued to deteriorate. Per capita GDP declined in all of the countries in the region, with the exception of Costa Rica and Panama. Between 1981-1986 per capita product fell by 21 percent in Guatemala, 17 percent in El Salvador, 13 percent in Nicaragua and Honduras, and 11 percent in Costa Rica.

This setback coincided with a clear improvement in the terms of trade due to the increase in world prices for the region's major exports—coffee, bananas, and sugar—and the collapse of oil prices. Most of the countries also benefited from rescheduling external debts. However, these changes did not offset the negative effects of the region's social and political tensions, natural disasters such as the October 1986 earthquake in El Salvador, the general accentuation of the inflation and unemployment rates, and the drop in the net inflow of foreign capital.

In 1986, inflation in Nicaragua accelerated at an extraordinarily rapid rate for the second consecutive year. The Consumer Price Index increased nearly 780 percent in the 12 months ending in November 1986. The downward trend, which had characterized inflation in Costa Rica since 1983, was reversed. The 13.8 rate of inflation in 1986 represents a 2.7-percent increase from 1985. Inflation in El Salvador and Guatemala reached unusually high levels of 32 percent and 42 percent, respectively, for the second year in a row. Historically, price variations in these two countries have been among the smallest in the region, but both countries raised their exchange rates considerable in 1985 and 1986. However, inflation continued to be very low in Honduras and Panama, where the rate of domestic price increases has

traditionally varied in line with the fluctuations of international inflation, especially in the United States.

The 1987 outlook for the region's economies continues to be uncertain. It is unlikely that they can attain the relatively high growth rates they enjoyed during the 1970's. Better prospects will depend on an improvement in export prices for the region's principal agricultural goods, and on economic policies that restore business confidence to attract capital.

### *Caribbean*

Economic activity in the Caribbean remains stagnant primarily because prices in major export markets generally have been depressed for many months. Inflation continues to be a problem so that controlled prices have been used to stimulate domestic production for import substitution. Unemployment also continues to be a chronic problem as industrial development lags population growth. Layoffs in nonagricultural industries have become particularly acute in Haiti, the Dominican Republic, Jamaica, and several smaller countries.

Imports of productive inputs have even been curtailed in some cases to maintain foreign exchange balances and credit ratings. It appears that as Caribbean export markets deteriorate, individual governments are forced to further restrict imports, an action that subsequently intensifies the need for more controls. The outlook, however, can be expected to improve only after the world demand for goods and services improves or exporters diversify. In the interim, the Caribbean countries seem to be surviving primarily on foreign aid, overseas family remittances, and controlled imports.

Tourism, agriculture, and mining remain the dominant economic forces in the Caribbean, but commerce and industry are gaining momentum. The Caribbean Basin Initiative (CBI), however, has not generated as much new business as some optimists had hoped. But interest in, and the search for new economic opportunities continue, even though only a few success stories have been confirmed during the CBI's first 3 years.



## *Andean Region*

Several Andean countries are emerging from the economic slump of the early eighties, even though inflation and foreign debt remain troublesome. While Peru, Chile, and Colombia showed impressive economic growth, prospects are for slower rates in 1987. Venezuela and Ecuador had only moderate growth. Bolivia continued in its economic decline.

Peru had an impressive 8.5 percent increase in real income, mostly based on manufacturing and construction, but has only begun to recover since its standard of living is comparable to the level a decade ago. In Chile, the estimated 5.7-percent growth in gross agricultural production led Chile's economic expansion. Export-oriented industries, principally agriculture, fishing, forestry, and mining, are the backbone of Chile's current plan for economic growth.

Venezuela has reported a 3-percent growth in real GDP, although other observers believe the rate is less. Growth has been induced through considerable government expenditure, particularly in agricultural and construction. Manufacturing activity also turned upward. Because of the downturn in oil revenues and less likelihood of huge government outlays, economic growth is tenuous in 1987.

Ecuador's real income grew only by 1.7 percent in 1986 and is expected to increase 2 percent at best in 1987. The shortfall in petroleum earnings had far-reaching impacts given that oil is 14 percent of GDP, 63 percent of merchandise exports, and more than 60 percent of the Government's budget revenue. The March 1987 destruction by tremors of the country's petroleum export pipeline was another in a string of mishaps in recent years. The agriculture sector outperformed other sectors in 1986, mostly because of optimal weather conditions.

Colombia's economy grew by 5 percent after the Government's austerity measures to cope with foreign exchange and domestic deficit problems. Mining, commerce, and manufacturing grew the most, with agricultural production increasing 3 percent. Prospects are for another 4-5 percent growth in 1987.

Bolivia's economy continued its downhill slide at -3.7 percent in 1987, despite the Government's success at reducing the inflation rate and stabilizing the exchange rate. Mining, a mainstay of the economy, was shaken by the international tin market's collapse, but even oil and natural gas, agriculture, and manufacturing suffered declines.

Peru had a decline in inflation to 68 percent in 1986, with hopes of keeping it under control in 1987. Chile held inflation to 18 percent in 1986, but foodstuffs rose 23 percent, reflecting price pressures caused by reduced supplies of key foods for domestic consumption--potatoes, rice, and beans. Venezuela has held inflation down better than any other Latin American country in the last decade, but inflation could be as much as 30 percent in 1987. The food component of the Consumer Price Index (CPI) is rising faster than overall inflation, and some shortages and substitution among foods are occurring. For years, the Government had been able to insulate consumers from increased farm prices through an elaborate subsidy program, but the program is becoming increasingly expensive to maintain.

Ecuador's inflation was recorded at 27 percent in 1986, with some hopes of reduction in 1987. Colombia's inflation rate was held in check at 22 percent, mostly by controlling the money supply as additional coffee export earnings flowed into the domestic economy. After hyperinflation in 1985, Bolivia has controlled prices to an increase of 65 percent in 1986. The Government has attempted to liberalize trade to bring some stability to the economy.

In foreign trade, the decline in petroleum prices in 1986 caused further problems in Venezuela, where petroleum is more than 90 percent of exports, and Ecuador, where petroleum is more than 60 percent of exports, but was a boon to petroleum-deficit Chile, which saved \$40 million because of declining petroleum prices. The declining prices of Peru's metal exports have caused a reduction in export earnings, which were only partially offset by a 25 percent increase in fishery exports.

Chile's copper exports increased despite a slackening in the world copper price. Copper,



together with increasing fruit and fish meal exports and declining imports, left Chile with a trade surplus. Despite the renegotiation of foreign debt, Chile faced a balance of payments deficit because of debt repayment.

Venezuela was particularly hard hit by the decline in petroleum prices. Its oil export earnings fell from \$13 billion in 1985 to \$7.2 billion in 1986. While Venezuela still maintained a trade surplus, it ran a current account deficit for the first time since 1982.

In 1986, Ecuador's export earnings were positive despite the dropoff in petroleum earnings. Exports of bananas, coffee, and shrimp increased but were not enough to take up the slack. The cutoff of the export petroleum pipeline in spring 1987, precludes growth in export earnings in 1987. In Colombia, coffee export earnings of \$2.3 billion (compared with \$1.6 billion in 1985) were a boost to the general economy since coffee comprises nearly 60 percent of total export earnings. Increasing petroleum and coal exports are expected to offset lower coffee export earnings caused by the declining prices. Furthermore, Bolivia ran a negative trade balance, for the first time in a decade, while the current account has been negative for some time.

The improved economic climate has not translated into increased U.S. agricultural exports to the Andean countries.

Chile's expansion of wheat production is part of its import substitution policy but has precluded imports. Wheat imports have gone from more than 1 million tons to less than 200,000 tons in less than 5 years. One bright spot is Chile's purchase of U.S. corn in early 1987, to fill the needs of an expanding poultry industry. In most countries restrictions are placed on all but the most basic agricultural imports from the United States.

### *Argentina*

In the last decade, two governments, one military and the second democratic, have moved to revitalize agriculture. The military government pursued these policies in the favorable environment of rising world commodity prices and the 1980 U.S./USSR grain embargo. The current democratic

government, on the other hand, is attempting to revitalize agriculture in an environment of declining world prices and the agricultural trade war between the European Community (EC) and the United States.

The Alfonsín government (1983-88) seems determined to reform the economy by unshackling the agricultural sector and by reducing protectionism for industry. But the Government is proceeding cautiously to retain political support, and reforms are being phased in carefully to minimize social and economic disruption. Some progress has been made. In 1985, for instance, to control inflation, stabilize the economy, and establish the appropriate conditions for longer term growth, the Government set up the *Plan Austral*, which included such corrective measures as reduced currency emissions, exchange rate liberalization, currency devaluations, reduced deficit spending, and wage-price controls. So far, the plan has been successful in reducing inflation (from about 1,000 percent to 100 percent) and generating slow yet steady economic growth.

Border taxes on agricultural exports have been reduced, but the magnitude of world price declines is overwhelming. At best, lower export taxes have only partially offset world price declines. Moreover, as the tax wedge between domestic prices and world prices is diminished, the Government loses maneuverability to offset additional price declines. Meantime, foreign exchange reserves and government revenues are hemorrhaging, since agricultural export earnings account for 80 percent of foreign exchange earnings, and agricultural export taxes account for about 15 percent of central Government revenues.

In addition to lower agricultural export taxes, agricultural input taxes have been reduced, and subsidies are being offered to encourage fertilizer use among wheat farmers. (Currently, only about 15 percent of Argentine wheat area is fertilized, compared to about 75 percent for the United States.)

The Government's most dramatic initiative on agricultural policy, the land tax, is currently tied up in the legislative process, and its chances of becoming law are doubtful. According to the proposed legislation, land



taxes (based on the land's value without improvements) will offset income tax and wealth tax liabilities. However, the land tax proposal does not address the effect of land taxes on agricultural export taxes, which account for 70 percent of the agricultural taxes. Farmers are concerned that overall taxes will rise, unless the Government explicitly renounces its authority to impose export taxes.

### *Brazil*

The Brazilian economy has been through cycles of boom and bust during the 1980's. After a long period of growth in the 1970's, the burden of foreign debt and increased oil prices caused recession and sluggish growth in Brazil from 1981 through 1983. Export-led growth was a modest 4.3 percent in 1984. In 1985 and 1986, a democratic government stimulated domestic demand, and GDP grew vigorously at about 8 percent per year. In 1987, the spending spree ran out of steam, and the economy stumbled as the problems of foreign debt and inflation spun out of control. It is difficult to predict how quickly Brazil will be able to return to strong GDP growth.

At the end of February 1986, Brazil implemented an anti-inflation program, the Cruzado Plan, designed to spur growth, especially demand. Prices were frozen and salaries adjusted upwards to account for the inflation of the previous months. Higher wages improved the income distribution, and employment increased. For several months, investment in productive capacity grew as funds moved out of financial speculation. However, the price freeze was maintained for too long as the Government sought to increase its popularity. Shortages appeared where prices were frozen at low levels and illegal price surcharges became commonplace. Exports were diverted to satisfy domestic demand, and imports, especially food, were increased to relieve shortages. With foreign accounts in disarray, Brazil was forced to suspend payment of interest on its debt. When price controls were lifted, inflation reached record levels.

## TRADE SECTOR

### *Canada*

Canada's export sales of grains and oilseeds have been brisk during the marketing

year beginning August 1, 1986. As the Great Lakes' shipping route reopened this spring, overall exports were running more than 3 million metric tons ahead of last year's tally on the same date. Some estimates see the possibility for a record in Canada's grain/oilseed exports in the current marketing year.

Roughly 90 percent of Canada's livestock and meat exports go to the United States. And, as the Canadian dollar continued to depreciate against the U.S. dollar in 1986, Canada's meat exports continued to grow. A total of C\$1.2 billion in sales were recorded--6 percent more than a year earlier.

The United States realizes a large net trade balance with Canada in fruits, nuts, and vegetables. But in recent years the U.S. share of Canada's imports of these commodities has been shrinking. Since 1983, the U.S. share of Canada's fruit, nut, and vegetable imports has shrunk marginally. The Canadian dollar has been falling against the U.S. dollar since 1976, but rising against many other currencies, and the United States has been facing stiff competition from other suppliers.

In the first quarter of 1987, the Canadian dollar appreciated 5 percent against the U.S. dollar. If this marks a trend, the United States should regain some of its former trade share of fruits, nuts, and vegetables imported by Canada. And U.S. imports of Canadian livestock and meat could shrink somewhat.

### *Mexico*

Mexico managed to generate a \$4.4 billion merchandise trade surplus in 1986 despite a dramatic fall in petroleum export revenues, down \$8.4 billion. Tourism and in-bond (*maquiladora*) industries also generated positive trade flows, for a total of \$2.4 billion. Nevertheless, these positive trade balances were not enough to offset the almost \$9 billion in interest payments on Mexico's foreign debt. A positive net capital flow (\$1.5 billion) and a small drawdown on previously approved loans helped close the gap.

Nonpetroleum exports registered a large increase in 1986, with growth in agro-industrial exports leading the rise. Depressed Mexican demand and a strong U.S. market for winter vegetables, live cattle,



coffee, and malt beverages boosted sales to the United States to a record \$2 billion. On the other hand, U.S. agricultural sales to Mexico dropped by \$360 million due to a depressed Mexican economy and favorable agricultural production. The only significant gains for the United States were sales of nonfat dry milk, dried beans, and sunflower oil. As a result, the U.S. agricultural trade deficit with Mexico grew to \$942 million in 1986, the largest ever.

Changes in Mexico's trade policy are expected to keep this a dynamic sector. By joining the General Agreement on Tariffs and Trade (GATT) in 1986, Mexico reinforced its trade liberalization policy. About two-thirds of its imports (by value) no longer require permits prior to import, and official invoice pricing, which tended to raise import prices, is expected to be phased out in 1987. Mexico is replacing its import licensing program with a tariff schedule fashioned along GATT guidelines. Importers of major agricultural commodities, however, are still required to obtain a license to import.

In addition, flexible exchange rates are being used to keep international financial distortions to a minimum. The Government is experimenting with a futures exchange rate market that will allow private traders to hedge against unexpected economic and policy changes. Petroleum export pricing has also been removed from Government controls in favor of daily price adjustments based on market conditions.

### *Central America*

U.S. agricultural exports to Central America in 1986, valued at \$336 million, were down 7 percent mainly because of lower prices for U.S. exports. The countries' import capacity also has been reduced. Overall U.S. exports in the region are facing growing competition and increased trade restrictions to control current account deficits. The continued low prices for the region's exports of agricultural products coupled with a 25-percent service requirement on an external debt of more than \$20 billion will severely limit imports of all but essential agricultural products.

The United States continues to be the major supplier for Central American imports through its varied Food Aid programs.

### *Caribbean*

Agricultural and mineral products continue to dominate foreign trade, but industrial goods and tourism are gaining ground. The United States is the principal trading partner of most countries in the region, except for Cuba.

U.S. exports of grains, oilseeds, and livestock products, as well as some agricultural and industrial inputs, account for nearly all U.S. exports to the region. The United States buys coffee, sugar, molasses, beef, and tropical products from the region, but Western European countries remain the secondary market for Caribbean products.

Cuba trades primarily with centrally planned economies in Eastern Europe, but buys most of its grain and oilseed products from Canada, Argentina, or other exporters. The centrally planned countries, barter oil and industrial goods for Cuban sugar and tropical products. This arrangement, ironically, has encouraged Cuba to expand sugar production still despised by Caribbean farmers and laborers as a vivid reminder of the colonial era. Nevertheless, about 75 percent of Cuba's foreign exchange earnings are still generated by sugar exports.

St. Kitts and the Dominican Republic are the only other countries in the Western Hemisphere that remain significantly dependent on sugar. Jamaica, for example, receives less than 10 percent of its foreign currency earnings from sugar. Jamaica is one of the largest markets for U.S. poultry in the world. Furthermore, Caribbean countries have the highest per capita consumption of U.S. agricultural products of any region in the world. Currently the United States is exporting about \$800 million in agricultural products annually to the region and importing half that amount.

U.S. agricultural trade with the Caribbean

| Item                           | 1983 | 1984 | 1985 | 1986 | 1987 |
|--------------------------------|------|------|------|------|------|
| Million dollars                |      |      |      |      |      |
| U.S. exports to Caribbean 1/   | 784  | 844  | 778  | 794  | 850  |
| U.S. imports from Caribbean 1/ | 470  | 576  | 467  | 466  | 480  |

1/ Including Guyana, Suriname, and French Guiana.



Major agricultural imports and exports  
of the Caribbean 1/

| Commodity      | 1983  | 1984  | 1985 2/    | 1986 2/ | 1987 3/ |
|----------------|-------|-------|------------|---------|---------|
| <b>Imports</b> |       |       |            |         |         |
|                |       |       | 1,000 tons |         |         |
| Wheat 4/       | 1,945 | 2,015 | 2,110      | 2,160   | 2,200   |
| Cuba           | 1,200 | 1,250 | 1,300      | 1,300   | 1,350   |
| Other          | 745   | 765   | 810        | 800     | 850     |
| Corn           | 1,052 | 1,083 | 1,050      | 1,090   | 1,120   |
| Cuba           | 402   | 423   | 450        | 480     | 500     |
| Other          | 650   | 660   | 600        | 610     | 620     |
| Rice 5/        | 361   | 356   | 395        | 450     | 430     |
| Cuba           | 207   | 210   | 220        | 220     | 230     |
| Other          | 154   | 146   | 175        | 230     | 200     |
| <b>Exports</b> |       |       |            |         |         |
| Sugar 6/       | 8,293 | 8,437 | 8,755      | 7,540   | 7,400   |
| Cuba           | 6,792 | 7,016 | 7,400      | 6,500   | 6,390   |
| Dom. Rep.      | 956   | 885   | 800        | 460     | 510     |
| Other          | 545   | 536   | 555        | 580     | 500     |
| Bananas        | 160   | 170   | 180        | 200     | 200     |
| Coffee 7/      | 73    | 66    | 60         | 70      | 80      |
| Rice 8/        | 169   | 180   | 175        | 180     | 180     |
| Citrus 9/      | 385   | 380   | 360        | 400     | 450     |

1/ Except Puerto Rico, the U.S. Virgin Islands, and the French West Indies. 2/ Estimated. 3/ Projected. 4/ Including flour. 5/ Milled rice. 6/ ISO Yearbook. 7/ Primarily Haiti and the Dominican Republic. 8/ Guyana and Suriname. 9/ Primarily Cuba. Revised May 15, 1987.

### Andean Region

U.S. agricultural exports to the Andean countries continued their slide in 1986, with a 27-percent drop to \$840 million. The decline originated when imports were tightened to conserve foreign reserves, because of the burden of foreign debt, government policy drives to achieve self-sufficiency, and competition from other traders for the Latin American market. Venezuela and Colombia showed the largest declines at \$188 and \$108 million, respectively. In Venezuela, a record corn harvest in late 1986 and lower prices caused feed grain imports from the United States to fall from \$177 million to \$66 million in 1 year. Pulses and oilseeds took a similar beating. U.S. wheat exports to Venezuela were brighter, increasing 35 percent to \$132 million, making wheat the largest single commodity traded. In Colombia, wheat and oilseed imports declined the most, because of their tight import policy and a changeover to other trading partners. Some trading is based on bilateral agreements under the umbrella organization ALADI, which offers preferential tariffs to member trading countries.

U.S. agricultural imports from the region climbed 18 percent to over \$2 billion.

Colombia, with a 39-percent increase in coffee prices and a slight increase in volume, showed the largest gain in trade to \$980 million. The other Andean countries increased their exports to the United States but not so dramatically.

Prospects are likely for another low agricultural import year in 1987, but with some bright spots. Venezuela's corn crop was less than expected and demand for feed continues to grow, ensuring that feed grain imports will increase from a year ago. Wheat imports, based mostly on population growth, will probably be about the same, despite the import of 200,000 tons of Argentine wheat and the program of mixing corn and rice with wheat flour. The mix of imports of soybeans and soybean products may change, but the need for these products continues to grow. Chile has begun to import corn for its poultry industry in 1987, but wheat imports will stabilize at about 200,000 metric tons. Peru's agricultural imports from the United States, mostly wheat and vegetable oil, are also expected to increase again in 1987, as income rises and strengthens import demand.

U.S. agricultural imports from the Andean region will decline as the price of coffee recedes. However, nontraditional imports (i.e., grapes from Chile) will continue to grow.

### Argentina

Argentina is one of the world's largest exporter of grains, oilseeds, and sun products, accounting for 10 percent of world trade, compared to about 40 percent for the United States. Although Argentine agriculture is competitive on a world class basis, its farm resources are underused and the grain marketing infrastructure inefficient. Traditional economic policies discriminate against agriculture.

National industrial policies have prevailed during most of modern Argentine history, with only occasional interruptions. That is, when foreign reserves become scarce or when the economy slumps, the Government expects agriculture to revitalize the economy. By reducing border taxes and/or liberalizing grain trade, the government can usually expect agricultural exports to act as an engine for economic growth.



The Argentine farm sector is highly responsive to world prices. One-half of Argentine agricultural production is exported, and changes in domestic agricultural prices are highly correlated with changes in world market prices. Thus, projected lower world prices for grains and oilseeds normally would reduce Argentine agricultural production and exports.

However, several factors could work against a normal response to lower world prices by the Argentine farm sector. Argentine farmgate prices traditionally have only run about 50 percent of f.o.b. export prices, compared to about 75 percent in the United States. Since there is a sizeable margin between Argentine farmgate prices and Argentine export or world prices, then the transmission of lower world prices to lower farmgate prices in Argentina can be mitigated. If this happens, Argentine farmgate prices will not decline along with world prices, and Argentina will be able to sustain agricultural exports and market shares.

The likelihood of reducing the transmission of lower world prices to Argentine farm prices will depend on three principal factors. First, Argentine farmers produce at very low costs, so Argentine farmgate prices can rise and still remain well below world market prices. Second, the internal cost of marketing agricultural

products is very high (despite the proximity of farm production regions to export terminals), so Argentine farmgate prices can increase if grain handling costs are reduced. And third, since export taxes and exchange rates affect domestic prices, farmgate prices could increase if taxes are reduced or eliminated.

### Brazil

Brazil was one of the world's largest net exporters of agricultural commodities in 1985, and in 4 of the last 5 years, Brazil has been among the top three suppliers of agricultural commodities to the United States. Brazil controls trade by requiring registration of imports and exports. Registrations are often closed or opened depending on whether the government wants to encourage or limit trade. Major agricultural exports include coffee, soybeans and products, frozen concentrated orange juice (FCOJ), cocoa and products, meats, sugar, and tobacco. Wheat is Brazil's major agricultural import, with the United States, Canada, and Argentina traditional suppliers. France is emerging as an important source of wheat.

Brazilian agricultural trade policy has changed emphasis since 1984. During the military dictatorship, export promotion was a top priority, especially in 1983 and 1984. Soybean production was encouraged. In 1985, the Government, now civilian, made food crops for domestic production a higher priority. Planted area shifted from soybeans to corn and wheat in 1985/86 and 1986/87. Drought in late 1985 complicated the trade picture. With prices frozen in 1986, the reduced harvest threatened to cause massive shortages. The Government turned to massive imports, not only of traditional import commodities like wheat and milk, but also of beef, corn, dry edible beans, and rice. Exports of coffee, soybeans, and soybean products were limited in order to assure supplies for domestic consumers. Brazil will have larger supplies in 1987, a record corn crop is being harvested, and storage capacity is a problem.

Argentina: Farm production and exports in 1986 1/

| Item            | Production<br>1,000 tons | Export<br>tons | Export/Prod.<br>percent |
|-----------------|--------------------------|----------------|-------------------------|
| Wheat           | 9000                     | 4500           | 50                      |
| Rice 2/         | 275                      | 145            | 53                      |
| Coarse Grain 3/ | 17100                    | 9574           | 56                      |
| Soybeans        | 7300                     | 2600           | 36                      |
| Veg. Oil 4/     | 2105                     | 1650           | 78                      |
| Oils. Meal 4/   | 5030                     | 4550           | 91                      |
| Beef            | 2700                     | 220            | 8                       |
| Food 5/         | 14080                    | 6515           | 46                      |
| Non Food 6/     | 29430                    | 16724          | 57                      |
| Total           | 43510                    | 23239          | 53                      |

1/ Preliminary. Wheat harvested in December 1985, coarse grains harvested in March 1986, soybeans harvested in April 1986, and 1986 calendar year beef. 2/ Rice, milled basis. 3/ Mostly corn and sorghum. 4/ Addition of soybean and sunflowerseed products. 5/ Addition of wheat, rice, vegetable oil, and beef. 6/ Addition of coarse grain, soybeans, and oilseed meal.

Brazil's export programs often do not offset high export taxes. Government involvement is greatest for coffee, sugar, and cocoa. The Government controls and taxes coffee exports through the Brazilian Coffee Institute. The Institute for Sugar and Alcohol controls production and trade, but due to low



world prices, the major trade intervention is to subsidize exports. For other exports, such as soybeans, differential export taxes encourage exports of processed products to increase the value added in Brazil. Tax rebates for exporting have been mostly phased out, but a major program provides companies who agree to reach a certain level of exports with authorization and financing for imports.

## AGRICULTURAL SECTOR

### *Canada*

Rising input costs and falling prices for nearly all crops have forced Canada to adopt economic measures particularly for the prairies. One economic measure is to skip a particular field operation entirely if it does not pay for itself. The operation of controlling wild oats is an example. In 1979, the average wild oat herbicide treatment cost \$9.65 per acre. In the same year, No. 1 hard wheat went for \$4.62 a bushel. A yield of 2.1 bu/acre could pay for the herbicide. A one-third rise in herbicide cost and a one-half fall in wheat price now require more than twice the yield boost to pay for the herbicide application.

Producers have cut back on machinery and equipment purchases in the 1980's. In February 1987, purchases of two-wheel-drive tractors were off 9 percent and purchases of four-wheel-drive tractors were off 44 percent from the previous February.

In the past 5 years, land values have fallen by one-fourth in Western Canada, wiping out billions of dollars worth of farm assets. And the worst may not yet be over. Producers are now renting more than 50 million acres of the land they work, and the ratio of rented-to-owned land is likely to continue to grow as farmers can afford less capital investment in a shrinking profit industry. Large competitive farmers who were relatively debt-free when the adversities of the 1980's took place were able to hold on to the land readily, some of these have retired and their sons are renting the land.

Canada's livestock industry has been doing better in 1986 and 1987, helped by low feed prices, a continued shrinking of cattle numbers, and reduced hog numbers in the United States in 1986, to a point where hog

prices in North America climbed to record heights.

### *Mexico*

The 1985/86 production season was mixed. Most crops and livestock were favored by continuous good weather that kept irrigation reservoir levels near capacity, but producers faced a price/cost squeeze, and poor economic performance reduced demand.

Area was generally stagnant for crops produced primarily for domestic consumption because of falling producer prices and rising costs. The real guarantee price for basic crops declined, while at the same time producer subsidies were being reduced. Sluggish domestic demand also put downward pressure on prices, especially for livestock feeds. Crops produced for export enjoyed an expanding export market and higher world prices. Exports of fresh tomatoes, for example, jumped 12 percent in volume and 114 percent in value during 1986. Mexico's important coffee exports (about one-half of total value) almost doubled in sales over 1985.

The economic downturn in 1986 affected the livestock sector in terms of lower demand and the substitution of less expensive protein sources for higher priced proteins (i.e., poultry for beef, milk and eggs for meat). An important "escape valve" for the beef industry was a strong U.S. demand for live feeder cattle. Mexican live cattle exports reached a record 1.2 million head in 1986. Other livestock sectors met limited demand by reducing production. An improved economic forecast for 1987 should revive demand prospects for livestock products.

The tight financial situation last year forced the Government to reduce both producer and consumer subsidies. On the average, real input costs rose 15-30 percent, whereas nominal support prices increased less than inflation. On the consumer side, the price of subsidized foods rose faster than other food items and faster than inflation in most cases. These trends are likely to continue into the near future as the Government attempts to control its spending and reduce its public deficit. For producers, this could lead to a greater substitution of export commodities for basic grains, such as corn and sorghum. Consumers will likely face



higher real prices for basic commodities, including corn *tortillas* and bread wheat. Internal price pressures could be eased somewhat if the Government opens its agricultural trade to foreign competition. The Government currently requires a permit to import agricultural commodities.

### *Central America*

Agriculture contributes one-fifth to one-fourth of the GDP of all Central American countries except Panama, constitutes from one-fourth (Belize) to five-eighths (Honduras) of the labor force, and supports three-fifths of the population. Agricultural products constitute two-thirds of the exports of all countries except Panama (30 percent) and Guatemala (40-45 percent). Taxes on these exports contribute much of each government's revenues. Traditional exports are concentrated on two to four commodities in each country, with coffee, sugar, and bananas dominating, and cotton, beef, shrimp, and cardamom important in some countries. Costa Rica, Guatemala, and more recently Honduras have generated the largest variety of nontraditional exports, including mangoes, pineapples, spices, ornamental plants and cut flowers, melons, garlic, snow peas, and other winter vegetables. However, such products compose less than 10 percent of their agricultural exports.

The region's index of agricultural production showed an increase of only 1 percent after dropping 6 percent in 1985. Central America suffered from one of the worst droughts on record, and crops failed particularly in El Salvador, Honduras, Nicaragua, and to some extent Panama. The livestock sector was affected also in Honduras, Nicaragua, and Panama.

Output was near or above record during 1986 for Costa Rica, Guatemala, and Panama, but it remained below the long-term trend especially on a per capita basis. Most of the growth was in the crop sector, with the increase centered in Costa Rica where crop output rose a sharp 19 percent in 1986, making a strong recovery from the very low 1985 level.

### *Caribbean*

Soil, water, and weather remain the primary deterrents and determinants of

agricultural expansion in the Caribbean. Agricultural policies, marketing, and pricing also remain critical determinants of supply and demand. But the demand for agricultural imports in the region is expected to increase over the next few years as populations and incomes increase.

In general, the region has a good resource base. Temperatures are nearly ideal. The climate is semitropical to tropical. The soils respond well to fertilizer, water, and other inputs. Production, however, has been falling in recent years for a variety of reasons. Cheap food policies, for example, discourage producers. But production can still be increased if the proper mix of inputs and incentives is used.

Nearly every year a natural disaster, such as a tropical storm, a drought, or a volcanic eruption, strikes one or more of the primary growing areas of the region. But production typically falls off only 3 to 5 percent in any given year, and usually recovers quickly. Nevertheless, it may take 3 to 5 years to reestablish some industries if the infrastructure is destroyed and the importation of critical inputs restricted. This is particularly true of tree crops, which require several months or years to reestablish themselves.

Historically, these are the periods when U.S. food and foreign aid programs are used most extensively. During the past 6 months, for example, the Eastern Caribbean has suffered one of the longest and driest "dry seasons" of the century. Pastures dried up, underweight animals were slaughtered, and spring harvests were seriously impaired. Even yields of perennial crops were severely damaged. Many production and export gains of 1986, therefore, appear to have been lost in 1987. Other areas of the Caribbean have done much better, but the future remains almost totally unpredictable in any specific country from one year to the next.

Two years ago, the Northern Caribbean suffered from a severe drought, while excessive rain appeared elsewhere in the Basin. Cuba's 1986 and 1987 sugar crops, appear to have been reduced by 12 to 15 percent because of the 1985 drought. Cuba's full recovery from that drought now appears to have been delayed another year or two.



The drought also crippled the Dominican Republic's drive for self-sufficiency by forcing the Government to relax import controls and allow the importation of nearly 100,000 tons of rice, in addition to substantial quantities of other commodities in 1986 and 1987.

Recent Government pricing policies in Haiti and the Dominican Republic have further encouraged the development of a black market for Dominican sugar and Haitian rice. Similarly, Haiti's high consumer and low producer price policies over the past few years have all but killed the commercial cane sugar industry. Haiti will have to import substantial quantities of sugar next year or change its sugar policy because the largest mill in Haiti recently announced bankruptcy. Depressed world market prices for sugar, coffee, bauxite, and other primary exports over the past 5 years have reduced export earnings of all countries in the region. Poor market conditions in recent years have forced many countries to constrain imports, so as to avoid balance of payments deficits. In Cuba, the Dominican Republic, Jamaica, and Barbados crop yields appear to have fallen at least 3 to 5 percent in the last few months because of shortages of inputs, such as fertilizer and hybrid seed. Conditions are expected to improve in the near future as proposed adjustments in government priorities and policies are implemented.

Import restrictions are not new to the Caribbean, but the latest economic measures appear to have had a particularly harsh effect on the economies of the Caribbean. Ironically, 1986 brought relatively good weather to the region, but government controls prevented any significant expansion in agriculture.

The outlook for 1988 is no brighter for Caribbean producers, but encouraging for American exporters. The downward trend in per capita agricultural production observed for several years is likely to continue. Thus, the Caribbean market for U.S. agricultural products is expected to remain strong and diverse for at least the next 5 years.

Other Western Hemisphere producers, such as Argentina, Canada, and Brazil, are expected to aggressively compete for a larger share of Caribbean agricultural imports over the next 3 to 5 years. The United States,

therefore, should not take the Caribbean market for granted, even with the Caribbean Basin Initiative (CBI).

## Argentina

Preliminary estimates indicate that the 1986-87 Argentine crop (including wheat, corn, sorghum, soybeans, sunflowerseeds, and flaxseed) was down for the second year in a row, to 32.8 million tons, compared to 36.7 million tons a year earlier.

Area planted was 4 percent lower than a year earlier, and area harvested 9 percent lower. Only 90 percent of area planted was harvested, compared to 95 percent a year

Table 1: Argentine grain and oilseed data

| Year, Mkt.year 1/                         | 1984  | 1985   | 1986  | 1987 2/ |
|-------------------------------------------|-------|--------|-------|---------|
| Area planted<br>1,000 hectares            |       |        |       |         |
| Grains 3/                                 | 13244 | 116501 | 10850 | 10300   |
| Oilseeds 4/                               | 5861  | 6425   | 7544  | 7340    |
| Total                                     | 19105 | 18075  | 18394 | 17640   |
| Area harvested<br>1,000 hectares          |       |        |       |         |
| Grains 3/                                 | 12295 | 11265  | 10196 | 9250    |
| Oilseeds 4/                               | 5669  | 6352   | 7244  | 6600    |
| Total                                     | 17964 | 17617  | 17440 | 15850   |
| Area planted/Area harvested<br>Percentage |       |        |       |         |
| Grains 3/                                 | 93    | 97     | 94    | 90      |
| Oilseeds 4/                               | 97    | 99     | 96    | 90      |
| Total                                     | 94    | 98     | 95    | 90      |
| Yields<br>metric tons per hectare         |       |        |       |         |
| Grains 3/                                 | 2.35  | 2.74   | 2.43  | 2.38    |
| Oilseeds 4/                               | 1.74  | 1.70   | 1.64  | 1.63    |
| Total                                     | 2.16  | 2.37   | 2.10  | 2.07    |
| Production<br>metric tons                 |       |        |       |         |
| Grains 3/                                 | 28900 | 30900  | 24800 | 22000   |
| Oilseeds 4/                               | 9860  | 10776  | 11884 | 10750   |
| Total                                     | 38760 | 41676  | 36684 | 32750   |
| Exports<br>metric tons                    |       |        |       |         |
| Grains 3/                                 | 17429 | 19666  | 13617 | 11000   |
| Oilseeds 4/                               | 3284  | 3344   | 3100  | 2900    |
| Oils.meal 4/                              | 3948  | 4194   | 4615  | 5025    |
| Veg.oil 4/                                | 1262  | 1574   | 1615  | 1700    |
| Total                                     | 25923 | 28778  | 22947 | 20625   |

- 1/ Combined local marketing years (MY) for wheat and flaxseed, harvested in December (t-1), and corn, sorghum, soybeans, and sunflowerseeds, harvested in March/April (t); where t = year.  
2/ Preliminary estimate. 3/ Addition of wheat, corn, and sorghum. 4/ Addition of soybeans, sunflowerseed, and flaxseed, or subproducts.



earlier. Yields were also lower, particularly for grains which have dropped 13 percent over the last 2 years. This decrease has been due largely to flooding of the December 1985 wheat crop and hot, dry weather between November 1986 and March 1987, reducing this year's corn and soybean yields.

### *Brazil*

Agricultural policy in Brazil has three major priorities: 1) food for domestic consumption, 2) exports for foreign exchange, and 3) alcohol for energy. These priorities conflict with each other, and policies frequently change as one priority becomes more urgent than the others.

Brazilian agriculture has a diverse structure. Many small farmers survive on subsistence agriculture, without clear title to their land and without access to inputs or credit. Some large landowners run extensive cattle operations with very low productivity. Brazil has also developed a dynamic modern agricultural sector, based in the South, that is composed of a blend of well-organized cooperatives of small farmers and large capital-intensive corporate farms.

From 1964 till 1985 the military dictatorship allowed the executive to change and implement policy by decree, resulting in many abrupt changes in the conduct of agricultural programs. Underlying the changes have been contradictory goals. Agricultural policy tries to maintain farmers' income, while providing plentiful supplies of inexpensive food to consumers. Policies have encouraged agricultural exports, but export taxes on agricultural products are a basic source of funding. Since 1975, the alcohol for energy program has placed another major demand on Brazilian agriculture.

The democratic movement that took power in 1985 is still governing under the Constitution written for the dictatorship, continuing the executive's law-by-decree power. Meanwhile, the fundamental contradictions in agricultural policy remain unresolved. However, during 1985 and 1986, foreign exchange constraints were less severe, and economic policies were oriented toward increasing consumption, including food. Income redistribution was also a priority, and plans for a major land reform program became

politically important. In 1985 and 1986, agricultural policy was consumer-oriented. When drought caused crop losses in 1986, the Government used massive imports of food to try to keep consumer prices from increasing. In the future, foreign exchange constraints will likely force agricultural policy to return to more export promotion.

Brazil maintains a minimum price support program and provides loans to farmers at below-market interest rates. A 13-to-18 percent value-added tax is applied to agricultural products. Price controls occasionally distort agricultural markets. Research, extension, and crop insurance programs have been important for some crops in some regions. Subsidies directed to specific inputs were important in the past but have been phased out. Coffee, cocoa, and sugar producers have special independent programs. Export and import controls are often changed, and import tariffs, though high, are often waived.

The minimum price support program covers most major crops. In recent years, it has become more important as the Government has increased minimum prices for major food crops to encourage production. Support prices include direct purchase (AGF), or storage loans (EGF) much like the U.S. program, where loans can be redeemed if the farmer wishes or forfeited to the Government at the minimum price. Most crops are supported near or below U.S. loan rates, with the notable exception of wheat.

The Government makes loans available to farmers to finance crop production costs (the largest program), livestock inventory, and some longer term investments, as well as the crop storage program. In 1987, funds are made available at 10 percent above the inflation rate. Disbursement and repayment terms are variable, depending on farmers' relationship with their bankers, but disbursements usually occur in three stages, starting with soil preparation and ending at harvest, with repayment due 6 months after dispersal. This program represents a significant subsidy because farmers would have to pay 40 to 80 percent higher interest rates if they borrowed the money at commercial rates. Moreover, if problems arise, such as drought, repayment of Government loans is allowed to fall into arrears.



The amount of funds available for production loans, storage loans, or investment has been reduced during the 1980's. Moreover interest rates charged farmers have been increased until rates are close to the Government's cost of borrowing. Only in the impoverished Northeast and in the Amazon are rates still subsidized below the inflation rate.

## GRAINS

### *Canada*

The grain market has become extremely competitive in the past year, primarily because the United States drastically reduced the loan rate for grains. This meant a drastic decline in Canadian wheat export prices from a high of US\$ 190 per ton in early spring of 1986, to about \$130 per ton for NO.1 Canadian Western Red Spring (CWRS) by late summer. Prices have recently improved, and the export price for NO. 1 CWRS is now being quoted at about US\$ 140 per ton. It has become difficult to assess the selling price of different wheat grades. Most sales are now being concluded through the use of subsidies or very competitive pricing. A recent sale of U.S. baking quality wheat to the USSR went at a price about US\$80 per ton.

Based on current world prices (which are almost completely determined on political rather than economic factors), Canada's Government will probably have to reimburse the wheat board's barley pool again in 1986/87, and the initial prices for 1987/88 are substantially lowered. Wheat stocks at the beginning of the 1986/87 marketing year were at the relatively low level of 8.45 million tons, and are expected to rise to 13.6 million tons. Coarse grain stocks stood at 6.2 million tons at the beginning and are expected to reach 7.6 million by the end of the year.

### *Mexico*

Despite rising prices and high unemployment, this year's grain consumption is expected to increase over 1986. A modest economic recovery and continued strong population growth will help offset rising prices and low incomes. Also, Mexican consumers are reportedly substituting food grains for higher priced foods, such as livestock products. Substitution within the grain

complex also will continue as producers seek alternative feed grains.

Total grain imports are expected to increase in 1987 because of stagnant production. In general, input costs have been rising faster than output prices as the Government reduces subsidies on major factors of production, primarily agricultural credit. This year's output is also being reduced because of disease problems with wheat. Affected wheat area is apparently being shifted into dry beans, corn, and sorghum, among other commodities. Imports will be further enhanced by stock building, which is expected to continue if world prices remain depressed and Mexican debt repayments are manageable.

The United States will remain Mexico's primary grain supplier, which amounted to 85 percent of total grain imports last year. Low prices and U.S. export credit guarantees likely will continue to favor Mexican purchases of U.S. corn and sorghum. U.S. wheat sales could become more important than in recent years because of projected shortages of Mexican food-quality wheat. Mexican imports of feed, wheat, and barley come largely from Canada, and rice from Asia.

### *Central America*

In 1986, total grain production was 6 percent below 1985's output as a result of a prolonged drought along the Pacific coastline. Costa Rica, El Salvador, and Nicaragua experienced the largest declines, with grain production falling by 10, 7, and 13 percent, respectively.

In terms of land area used and total annual production, corn is by far the most important of the basic grains. Corn alone represented about 70 percent of the region's total grain production in 1986, with the largest output produced by Guatemala. Nevertheless, the region's corn production was seriously affected by dry weather in 1986. The total output of 2.2 million tons was 7 percent below 1985's production. Higher imports are expected in 1987.

Although rice production in the region has followed a general upward trend in both area planted and total output, supplies often have



been short of internal consumption needs, requiring periodic imports to overcome deficits. A total of 18,000 tons were imported in 1986 to meet increasing domestic demand. While Panama had no imports, El Salvador required more than one-third of the total rice imports. Total output may decline in 1987 because of policy changes in some countries, such as lower price supports in Guatemala and poor credit availability in Panama.

The region does not produce relevant quantities of wheat. In fact, wheat is only produced in the highlands of Guatemala, which still depends on imports for two-thirds of its wheat requirements. Traditionally, the United States has been the region's primary wheat supplier, with small amounts coming from Canada, Argentina, and the EC.

### *Caribbean*

The grain situation in the Caribbean Basin changes very little from year to year. Wheat has been a primary import for years. With the exception of Cuba, most countries in the region buy wheat from the United States. In 1985 and 1986, U. S. trading partners in the region purchased about 725,000 tons of wheat and wheat products from the United States.

Wheat also is used to supplement domestic supplies of corn, beans, and rice when local harvests are poor. All attempts to grow wheat in the region, however, have failed, but the Caribbean taste for wheat remains strong and demand increases a little each year. Argentina and Canada are the primary competitors for wheat sales to the region.

Corn, beans, and sorghum on the other hand, are grown readily in most countries in the basin. Recent attempts to increase rice production in several countries have not been very successful. Cuba, Haiti, Jamaica, and the Dominican Republic are trying to increase domestic production of all staples, but it appears producer prices will have to be artificially set well above world market prices to get the production response desired in most instances. These policies, however, also frequently appear to be politically unacceptable to the parties in power.

Dramatic increases in grain production are not expected in the short run. Import

demand for wheat, corn, and sorghum, therefore, is expected to remain relatively firm and predictable in the Caribbean through the balance of the decade. Major crop failures, however, could alter demand somewhat in any given year.

### *Andean Region*

Total grain production increased 4 percent, from 11.3 million tons to 11.7 million tons. Venezuela, Ecuador, and Chile harvested record crops. Others in the region--Bolivia, Peru and Colombia--had level production for total grains but major shortfalls in rice that were offset by increases in corn and sorghum output. Peru, however, is the only country in the region whose decline in rice production has brought about increased imports (260,000 tons). Peru imported rice from the United States, China, North Korea, and others in 1986. Imports are continuing into 1987, until the next crop production cycle, when Peru anticipates increased rice production.

Wheat output increased from 1.85 million tons to 2 million tons. Chile, the principal wheat producer, had a record 1.7-million-ton crop in late 1986, mostly resulting from high support prices under its price band system. A decline in farm wheat prices is expected to cause some decline in 1987 wheat production. Chile, whose wheat imports declined from more than 1 million tons in 1983 to approximately 200,000 tons in 1987, may show a modest increase in trade in 1988. The Andean region is expected to import 3.6 million tons, mostly to Venezuela and Peru.

Coarse grain production increased from 5.8 million tons to 6.1 million tons in 1986. Corn and sorghum imports will probably increase in 1987 to 1.7 million tons. Increased demand for poultry and pork have resulted from growing real incomes in several countries. Venezuela, Colombia, Ecuador, and Bolivia have restricted corn imports. Venezuela will import sizeable quantities of sorghum because of its growing feed industry.

Venezuela's hog feed production nearly matches poultry feed, and dairy feed is growing. Chile has also emerged as a corn importer because of feed industry needs and a shortfall in its own corn production.

The U.S. share of the Andean grain import market has declined in recent years as



Argentina, Canada, and others have made overtures to enter this market.

### Argentina

Standing water from flooding in recent years has become a serious problem, particularly in western Buenos Aires Province. Ten percent of the farmland traditionally planted to wheat is under water; sunflowerseed areas have also been affected. Many explanations have been advanced, including the environmental impacts of South American hydroelectric projects, a pattern of more rainfall over the last decade, the diversion of the Quinto River in Cordoba Province, and the lack of investment in drainage by Argentine farmers on low-input land, particularly with range-fed cattle.

In addition to problems with flooding, the soil structure in the heart of the Argentine corn-soybean belt (northern Buenos Aires and southern Sante Fe provinces) has suffered considerably in recent years, so yields may diminish in the future. Soil degradation resulted from the wheat-soybean doubling-cropping boom which began in the mid-1970's. To date, wheat and soybean yields have been relatively high, considering the low level of inputs (fertilizer) used by Argentine farmers. But the outlook for yields is cause for concern.

Historically, Government policies have tended to depress crop prices and increase input prices, thus precluding the introduction of farm inputs, such as fertilizer. Soil structures, fertility, and yields have been maintained by carefully planned crop and livestock rotations. But in recent years, rotation schemes have been violated, and many farmers have depleted the soil's organic content by double-cropping year after year and by eliminating the rotation of croplands with pasture. In particular, share-crop farmers, who are active in the corn belt, are less conservation-oriented than farm owner-operators.

The outlook for lower yields may be reversed by a Government program designed to increase fertilizer use among wheat farmers in particular. Despite the sound economics of increased input use, farmers are generally reluctant to increase the economic risks of higher input use, given Argentina's

### Argentina: 1987 grain outlook

| Local marketing year | Area harvested<br>1,000 hectares | Production<br>1,000 tons | Exports | Ending stocks |
|----------------------|----------------------------------|--------------------------|---------|---------------|
| Wheat (Dec.- Nov.)   |                                  |                          |         |               |
| 1983-84              | 6900                             | 12800                    | 7847    | 1259          |
| 1984-85              | 5950                             | 13200                    | 9400    | 459           |
| 1985-86              | 5296                             | 8500                     | 4300    | 259           |
| 1986-87              | 5050                             | 9000                     | 4500    | 209           |
| Corn (Mar.- Feb.)    |                                  |                          |         |               |
| 1984-85              | 3025                             | 9200                     | 5448    | 91            |
| 1985-86              | 3350                             | 11500                    | 7126    | 390           |
| 1986-87              | 3500                             | 12100                    | 7367    | 523           |
| 1987-88              | 3200                             | 10000                    | 5700    | 223           |
| Sorghum (Mar.- Feb.) |                                  |                          |         |               |
| 1984-85              | 2370                             | 6900                     | 4134    | 67            |
| 1985-86              | 1965                             | 6200                     | 3140    | 327           |
| 1986-87              | 1400                             | 4200                     | 1950    | 177           |
| 1987-88              | 1000                             | 3000                     | 800     | 177           |
| Total                |                                  |                          |         |               |
| 1984-85              | 12295                            | 28900                    | 17429   | 1417          |
| 1985-86              | 11265                            | 30900                    | 19666   | 1176          |
| 1986-87              | 10196                            | 24800                    | 13617   | 959           |
| 1987-88              | 9250                             | 22000                    | 11000   | 609           |

Source: USDA, Foreign Agricultural Service, Grains Circular, April 1987.

already shaky business climate. Moreover, economic decision making probably still favors extensive land use over intensive land use.

### Brazil

Brazilian grain policy for the last two years has encouraged grain production through favorable minimum support prices and government loans to grain farmers. However, the sale of grain is still taxed. The Sarney government has made increased food consumption a high priority. When drought reduced supplies in 1986, massive grain imports were used to stabilize food prices.

Corn is Brazil's largest crop. The drive to improve production in 1986 was frustrated by drought during the planting season at the end of 1985. Record production is estimated for 1987 as low world prices for soybeans have encouraged expanded corn area, and favorable weather has contributed to record yields.

Corn consumption increased strongly in 1986, despite the reduced crop, because of increased demand for pork and poultry. Consumer incomes grew an estimated 12 percent in 1986, and beef shortages caused



additional demand for other livestock. Corn imports reached 2 million tons. Some of the corn purchased in 1986 did not arrive in Brazil until 1987, and strikes delayed transport. Imports arriving in the same year as a record harvest waste valuable foreign exchange. Moreover, corn consumption growth is likely to slow as the Brazilian economy stumbles and beef supplies return to more normal levels. The price support program will force the Government to be the largest purchaser of corn. However, the harvest is larger than storage capacity, and Brazil is subsidizing corn sales to poultry producers and may export some of the excess supplies of corn. Studies by the Ministry of Agriculture indicate Brazil does not plan to be a regular large exporter of corn. With supply greater than demand, corn production is likely to be less favored in the future.

Brazil has produced record rice crops in 1986 and 1987. Imports in 1986 have contributed to large stocks. The Brazil-Uruguay 5-year trade integration pact allows 200,000 tons of Uruguayan rice into Brazil. Brazil is unlikely to be a major purchaser in the world rice market contingent upon good harvest.

Brazil has had consecutive record wheat crops. The winter wheat crop harvesting at the end of 1985 was aided by the drought that hurt corn. Record yields in 1985, Government-support prices near US\$ 240/ton, and tighter control of crop insurance assured expanded and careful wheat planting in 1986. Despite a return to lower yields, wheat production reached 5.6 million metric tons in 1986.

Consumption subsidies and income increases helped wheat consumption to record levels in 1986. Prices were frozen by the Cruzado plan just before an increase in the wheat price was enacted.

Imports fell because production increases outstripped consumption gains. The United States lost market share because 1) Canada has a long-term wheat trade agreement with Brazil and matches U.S. credit offers, 2) the Brazil-Argentina Economic Integration Plan assures expanding purchases of Argentine wheat, and 3) France has increased its sales to Brazil through subsidized prices. In June 1987, Brazil announced the end of consumer

subsidies on wheat. The sixfold price increase is likely to cause a drop in demand of 20-30 percent. Brazil's wheat imports may fall somewhat in future years as both production and consumption are likely to be less subsidized.

## OILSEEDS

### *Mexico*

Poor weather was largely responsible for reduced oilseed output during the 1986 harvest, but production is expected to partially recover this year. Planting conditions are much improved, and there will be some substitution of oilseeds for diseased-damaged wheat in the major northwest crop zone. Domestic demand is expected to strengthen during 1987, which should help maintain producer prices. Producer plantings, however, will be moderated by rising input and credit costs.

Import demand for oilseeds and products will depend largely on improvements in Mexico's economy. The growth in both oilseed meal and vegetable oil demand is tied to conditions that affect the livestock sector and household use of vegetable oils. The current overcapacity in the oilseed crushing industry has prompted the Government to shift import permits to oilseeds versus products as opposed to last year, which saw a sharp increase in meal and oil imports.

The United States is expected to be the principal supplier of oilseeds, with competition coming from Argentina in soybeans, from Australia and Argentina in sunflower seeds, and from Canada in canola (rapeseed). Canada has been offering attractive financing terms, similar to our GSM-102, and has made large sales to Mexico during the past year. The United States supplies most of Mexico's oilseed product needs.

### *Caribbean*

Caribbean oilseed production is insufficient for domestic needs. In recent years, the United States has been exporting about 100,000 tons of oilseeds, oilseed meals, and vegetable oils, per year. Little change in this trade is expected in the next 2 or 3 years.



The alternatives to imported soybeans, however, may be more viable than alternatives to U.S. wheat and feed grains. The development of African palm and other vegetable oil crops looks promising and may prove to be profitable. This could take several years to determine.

The Caribbean alternatives for cooking oils appear to be more viable than alternatives for soybean meal, which is widely used as a protein supplement in poultry and livestock feeds. Suppliers of soybean meals therefore, should be able to compete effectively in the Caribbean for at least the next 5 years. The greatest threat to U.S. soybean and soybean product markets in the Caribbean is the potential development of new tropical soybean varieties.

### *Andean Region*

Cottonseed and the major oilseed crops, palm oil, and soybeans continued their upward trend, with production reaching nearly 900,000 tons in 1986. Sunflowerseed and canola (a rapeseed hybrid) are being introduced with considerable success. Oilseed imports were steady since the decline in Colombia's soybean imports was matched by increased imports by Venezuela and Peru. Oilseed imports are expected to continue in 1987. Output of the major vegetable oils also took an upturn to 227,000 tons, but failed to the plunge in vegetable oil imports. Peru's fish oil production doubled in 1986 to 220,000 tons, filling the gap. A 10-percent increase in fish meal output to 2.2 million tons supplemented oilseed meal production, with Chile as the principal producer and exporter.

Palm oil--particularly in Colombia--continues to grow, but so far has been used domestically in substitution. But the abundance of palm oil and fish oil have interacted to soften the vegetable oil markets.

Output of major oilseed meals rose in 1986, but was absorbed by increased needs for livestock feed. While Colombia is the largest manufacturer of oilseed meals, only Bolivia and Chile have exportable surpluses. Venezuela, the largest importer of oilseed meals, is expanding its feed manufacturing industry. Thus, oil meal imports (762,000 tons) are growing along with meal production (163,000 tons). The outlook for production of

oilseed meal and fish meal is for little change in 1987.

### *Argentina*

Relative prices in Argentina made a pronounced shift favoring soybeans in 1986. However, in the United States the corn/soybean wholesale price ratio was largely unchanged. Although U.S. and Argentine crop prices are positively correlated, relative prices are not because the magnitude of commodity price changes is not uniform in the two countries. For example, in 1986 Argentine corn prices fell 15 percent and the soybean price fell 9 percent, whereas U.S. prices declined 6 and 4 percent, respectively.

Relative crop prices are a major determinant of crop production in Argentina. Soybean, corn, wheat, and wheat-soybean double cropping represent four major options for field crop farmers in the fertile lands of the Argentine corn belt in northern Buenos Aires and southern Santa Fe Provinces. This area accounts for about 45 percent of Argentine soybean production, 35 percent of corn production, and 15 percent of wheat production. In addition, wheat-soybean double cropping is widely practiced in this area so that 50-60 percent of Argentine soybean area is double cropped, or about 30-40 percent of Argentine wheat area.

Price elasticity of supply is also important. That is, regardless of price ratios, low prices sometimes do not justify planting certain crops. For instance, lower world wheat prices accounted for a sharp drop in Argentine wheat planting in June 1986. As a result, more area was available for summer

U.S. and Argentine wholesale prices 1/

|         | Wheat          |           | Corn |           | Soybeans |           |
|---------|----------------|-----------|------|-----------|----------|-----------|
|         | U.S.           | Argentine | U.S. | Argentine | U.S.     | Argentine |
|         | (US\$ per ton) |           |      |           |          |           |
| 1980    | 159            | 188       | 117  | 144       | 282      | 227       |
| 1981    | 160            | 199       | 123  | 128       | 258      | 226       |
| 1982    | 147            | 137       | 101  | 86        | 220      | 180       |
| 1983    | 145            | 98        | 127  | 103       | 259      | 200       |
| 1984    | 140            | 92        | 129  | 106       | 263      | 165       |
| 1985 2/ | 125            | 83        | 105  | 78        | 207      | 138       |
| 1986 2/ | 120            | 81        | 99   | 66        | 199      | 126       |

1/ U.S. prices; No. 1 Hard Red Winter (ordinary protein) Kansas City, No. 2 yellow corn St. Louis, No. 1 yellow soybean Illinois processor. Argentine prices; Buenos Aires wholesale price for wheat, corn, and soybeans. 2/ Preliminary.



Argentina: 1987 oilseed outlook

| Local<br>marketing<br>year    | Area<br>harvested | Production | Crush | Export | Ending<br>stocks |
|-------------------------------|-------------------|------------|-------|--------|------------------|
| 1,000 hectares and 1,000 tons |                   |            |       |        |                  |
| Soybean (Apr.- Mar.)          |                   |            |       |        |                  |
| 1984-85                       | 2910              | 7000       | 3617  | 3132   | 278              |
| 1985-86                       | 3270              | 6750       | 3445  | 2954   | 294              |
| 1986-87                       | 3350              | 7300       | 4450  | 2600   | 180              |
| 1987-88                       | 3650              | 7700       | 4675  | 2650   | 185              |
| Sunflowerseed (Mar.- Feb.)    |                   |            |       |        |                  |
| 1984-85                       | 1989              | 2200       | 2054  | 146    | 204              |
| 1985-86                       | 2350              | 3400       | 3136  | 390    | 21               |
| 1986-87                       | 3140              | 4100       | 3400  | 500    | 151              |
| 1987-88                       | 2200              | 2500       | 2240  | 250    | 100              |
| Flaxseed (Dec.- Nov.)         |                   |            |       |        |                  |
| 1984-85                       | 770               | 660        | 645   | 6      | 9                |
| 1985-86                       | 732               | 626        | 586   | 0      | 19               |
| 1986-87                       | 754               | 484        | 480   | 0      | 9                |
| 1987-88                       | 750               | 550        | 525   | 0      | 9                |
| Total                         |                   |            |       |        |                  |
| 1984-85                       | 5669              | 9860       | 6316  | 3284   | 491              |
| 1985-86                       | 6352              | 10776      | 7167  | 3344   | 334              |
| 1986-87                       | 7244              | 11884      | 8330  | 3100   | 340              |
| 1987-88                       | 6600              | 10750      | 7440  | 2900   | 294              |

Source: USDA, Foreign Agricultural Service, Oilseed Circular, April 1987.

crop planting in November, including planting of more soybeans and more early planted soybeans.

## COTTON

### Mexico

The 1986/87 Mexican crop is down by one-third, to 142,000 tons due to poor economic conditions. Low international prices and weak internal demand contributed to this situation. Higher production costs have also squeezed producers' profits. Lower output has reduced cotton exports by almost 40 percent, to 51,000 tons. At the same time, estimated imports increased from 4,000 to 39,000 tons. Domestic shortages forced Mexican authorities to allow above-normal imports to keep cotton mills operating during seasonal slack periods. The United States shipped a modest amount to Mexico in 1986, just under \$4 million, but the highest amount since 1983.

The outlook for the 1987/88 season indicates a revival of production, approaching more normal levels of more than 200,000 tons. Producers likely will continue to see profits limited by high costs and low prices. There are indications that cotton growers have been switching to more remunerative crops such as winter vegetables. Consumer demand

is expected to pick up slightly, even if the economy shows only moderate growth. Cotton exports will be up, but Mexico will face stiff competition in a tight world market.

### Central America

Cotton production, which is concentrated in Guatemala, El Salvador, and Nicaragua, peaked in the late 1970's and has declined since. Total output in 1986 was about 87,000 tons, about 43 percent lower than in 1985. In El Salvador alone, the 1986/87 crop was 42 percent lower than the 1985/86 harvest. The high cost of production associated with cotton has eroded its profitability, while low world prices, and shortages of foreign exchange and agricultural credit have further reduced plantings.

El Salvador's cotton industry also has been hard hit by the insurgency going on in the eastern region, where more than 80 percent of cotton plantations are located. More than 50 percent of cotton lands were affected by agrarian reform.

Guatemala authorized the planting of only 21,000 hectares during this past 1986/87 crop year, claiming that world prices did not merit cotton production for exports. The area yielded about 25,000 tons of lint cotton, barely enough to meet domestic consumption. The possibility of lint cotton world prices reaching more than \$1,200/ton has prompted the Government to announce that it will permit a larger area to be planted in 1987/88. If this materializes, total area will probably reach 40,000-45,000 hectares, increasing production to around 45,000 tons.

Nicaragua's total cotton production in 1986 was 43,000 tons lower than in 1985 because of a drop in planting due to war and the negative effects of the "Angular Leaf Spot," a new disease that spread in 1984. About 9,000 hectares have been affected. The Nicaraguan Government announced an emergency special incentives program to increase production. The Government is encouraging farmers to develop disease-resistant varieties, although at least 3 years are required before the new plants would be ready.

The region's falling cotton production harms its textile industry and manufacturing



sector, with probably the greatest potential for medium-term growth. Given the unfavorable situation faced by Central American cotton growers, cotton area and exports are unlikely to increase significantly.

#### *Caribbean*

Cotton has not been a significant commercial crop in the Caribbean for years. Small acreages of sea island cotton, which makes a silky and highly desirable cloth, may make a comeback someday, but recent attempts to produce and market it have not been very successful. The outlook for increasing production of sea island and other varieties in the Caribbean is not promising.

The consumption of cotton fabric in the region, however, appears to be on the rise. The flow of U.S. exports to the region will probably increase steadily over the next few years, but this is not likely to show up in the trade statistics for two reasons. First, most cotton is likely to enter the region as cloth pieces for assembly and return to the United States as a final product. Second, most of the assembly may occur in free trade zones, with ownership retained throughout by the offshore firm. Thus, the region could become the next center for wearing apparel assembly for American and European markets.

#### *Andean Region*

The decline in global cotton prices and little opportunity for exports of cotton manufactures hampered the cotton industry in 1986/87. In Peru, shifts to other crops like corn and rice have occurred as has a decline in yields due to the moderate El Nino of early 1987. However, the recent turnaround in prices is expected to encourage more cotton area in 1987. Peruvian output is projected at 87,000 tons, up nearly one-fourth. Prospects also are brighter in Colombia where production for 1987 also may increase about one-fourth to 142,000 tons.

#### *Brazil*

Brazil is the world's sixth largest cotton producer. Most cotton farms are small but organized in cooperatives. The Government treats cotton as an export crop, and recent emphasis on food crops has resulted in less favorable credit terms and support prices for

cotton. However, Brazil does not export much raw cotton fiber, preferring to export the cotton as yarn and textiles. Exports of raw cotton are usually not permitted, forcing the cotton farmer to sell to the domestic market. Without direct access to the world market, and with weakened price supports, cotton faces more unfavorable conditions than other crops in Brazil. Moreover, the boll weevil has reached Brazil in recent years, making production more difficult and lowering yields. Area planted declined in 1985/86 and 1986/87. Given this unfavorable situation, cotton area and exports are unlikely to increase significantly. The 1987 crop is projected at more than 700,000 tons, up 14 percent from 1986. Trade in raw cotton most likely will consist of export of surplus low quality cotton and imports of small quantities of higher quality cotton.

### SUGAR

#### *Mexico*

Mexico is once again a large sugar exporter after importing for several years. Price incentives, good weather, and more efficient sugar mill operations have contributed to this turnaround. A record sugar output in 1985 and a near-record crop in 1986 resulted in surplus production. Depressed domestic demand also contributed to large exportable supplies. Another record sugar harvest is forecast for 1987. Sugar exports are expected to more than double to one-half million tons during the 1986/87 marketing year (Nov.-Oct.). This will be the largest export volume since the 1975/76 season. The largest markets for Mexican sugar are the Soviet block countries, Western Europe, and the Middle East. Although most of the exports are transhipped through the United States, the U.S. sugar import quota for Mexico is only 6,600 tons.

The Mexican Government has made a concerted effort to boost sugarcane production and, at the same time, make its sugar processing operations more efficient. Subsidies to the sugar industry have been heavy in the past, but are now being reduced. Several old mills have been closed, and more are scheduled to be shut down. Some operations will be sold to the private sector, which currently controls about 25 percent of the industry's production capacity. Only the

Government's sugar agency, AZUCAR, is allowed to export sugar.

Domestic demand for sugar over the past 4 years has been hit by falling real wages and high unemployment. The per capita consumption of sugar is higher in Mexico than in almost any other nation, and much of that consumption is in the form of soft drinks. Lower subsidies to soft drink manufacturers will likely raise prices and further dampen demand. This also will tend to shift consumption from industrial to household uses.

### *Central America*

Sugar is the most widely distributed product in Central America and is of importance to all seven countries on the isthmus. Sugar is Belize's most important product, and it was Panama's leading export earner. Guatemala is the largest producer, with about 30 percent of the total 1.6 million tons produced annually in Central America. Belize produces 8 percent, and the others each produce 12-13 percent.

The decline in world prices and the continued reduction in U.S. sugar quotas have affected the economies of these countries so drastically that some are considering the possibility of producing ethanol.

For El Salvador, sugar is the second most important export crop after coffee accounting for about 4 percent of total agricultural output and total exports. The Government has made a tremendous effort to make its sugar processing plants more efficient. The sugar industry is heavily subsidized because of its importance as a source of employment. The

National Institute for Sugar (INAZUCAR) has plans to increase internal sugar consumption through an increase in the production of ethanol. There is one sugar plant producing ethanol, and two more plants are expected to be installed in 1988 and 1989.

The small increase in world price detected in mid-1986 made the Government of Guatemala increase the area planted in sugarcane by almost 12 percent, consequently increasing production by 6 percent. In Costa Rica some cane growers are already planting coffee instead of sugarcane because of the 50-percent reduction in the country's quota. The government has not yet made a decision on sugarcane, but it is expected that some small and inefficient mills will be closed shortly.

### *Caribbean*

Contrary to popular opinion, more countries in the Caribbean are importing sugar than exporting it. Cuba remains the number one exporter in the Caribbean and the world. Brazil, the EC, and perhaps one or two other countries could challenge Cuba as the leading sugar exporter, although together these countries export less than half as much raw sugar as Cuba.

Cuba currently exports 6 to 7 million metric tons annually. More than half of this sugar goes to the USSR and Eastern Europe, where a premium in excess of 40 cents per pound reportedly is paid for it. Cuba does not ship sugar to the United States.

Sugar, however, remains the primary source of export revenue in only two Caribbean countries and a secondary source in

Central America sugar quota allocations  
(short tons, raw value)

| Country/<br>Percentages | 10-01-82<br>09-30-83 | 09-26-83<br>09-30-84 | 10-01-84<br>11-30-85 | 12-01-85<br>12-31-86 | 01-01-87<br>12-31-87 |
|-------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Belize (1.1)            | 30,800               | 33,462               | 27,940               | 18,876               | 10,010               |
| Costa Rica (1.5)        | 42,000               | 62,415               | 52,302               | 34,713               | 17,583               |
| El Salvador (2.6)       | 72,800               | 89,163               | 74,561               | 49,999               | 10,010               |
| Guatemala (4.8)         | 134,400              | 146,016              | 121,920              | 82,368               | 7,500                |
| Honduras (1.0)          | 28,000               | 59,514               | 50,017               | 32,713               | 7,500                |
| Nicaragua (---)         | 58,800               | 6,000                | 6,000                | ---                  | ---                  |
| Panama (2.9)            | 81,200               | 88,218               | 73,660               | 49,764               | 26,390               |
| Total Quota             | 448,000              | 484,788              | 406,400              | 268,434              | 78,993               |

Source: World Sugar and Molasses Situation and Outlook, Foreign Agricultural Service, May 1987.



only a few others. Cuba and St. Kitts, the region's largest and smallest producers, respectively, get more than 50 percent of their export earnings from sugar. Barbados, Guyana, and the Dominican Republic get 20 to 40 percent, and the rest of the Caribbean earns little, if any, revenue from sugar. At least 10 Caribbean countries import all the sugar and sweeteners they consume.

The Dominican Republic, the second largest producer of centrifugal sugar in the Caribbean, exports only about one-tenth the amount of sugar as Cuba, but remains the largest foreign supplier in the U.S. market. More than half of Dominican sugar was exported to the United States as recently as 3 or 4 years ago, but less than a quarter of a million tons will be shipped to the U.S. market in 1987 because of reductions in the U.S. quota. Although the Dominican Republic holds a 17-percent share of the U.S. global quota, Dominican sugar exports have declined from about 700,000 tons to about 450,000 tons annually. The Government has tried to find new markets for its recently acquired surpluses but has not been very successful. In response to growing stocks, Dominican cane farmers have cut production by about one-third over the past 3 years, bringing severe hardship to thousands of rural families who depend on the sugar industry.

The only countries still producing exportable quantities of sugar in the Caribbean are Cuba, St. Kitts, the Dominican Republic, Barbados, Trinidad, Guyana, Jamaica, Puerto Rico, and the French West Indies. Caribbean sugar must be subsidized in all Basin countries to maintain production at current levels. Sugar production, however, is likely to continue for some time because it is an excellent cover crop for the region's fragile soils, and it employs a lot of laborers. But exportable quantities are not expected to grow rapidly, if at all, except perhaps in Cuba, even if world sugar prices and markets improve considerably. Nevertheless, sugar may remain in these countries for many years as a primary source of food, income, and employment for a significant number of people.

Haiti is closing down its commercial sugar operations. Haiti used to be a net exporter, but became a net importer several years ago when the Government no longer was willing to subsidize commercial cane production.

Commercial production essentially ended with the recently announced closing of the HASCO mill.

### *Andean Region*

Andean sugar production did not change significantly from 1985 to 1986. Production increased in Venezuela, Chile, and Peru but was down in Ecuador and Colombia. Colombia, the largest producer, had a sharp cutback in acreage, but yields were higher. In foreign trade, exports were lower in 1986 mostly because of the cutback in the U.S. sugar quota. The decline in Ecuador's production was also due to reduced acreage, but floods in the major producing area at the beginning of the crop year led to reduced yield. Ecuador fulfilled its raw sugar quota to the United States, but the estimated shortfall is being covered by refined sugar imports from Central America. Peru also had a short crop. Increased demand for soft drinks is causing greater use of sugar, but Peru like Ecuador will fulfill its sugar quota to the United States and import for domestic use.

Chile and Venezuela had increased outturns in sugar, which will preclude imports. A 30-percent increase in Venezuela's sugar cane production and existing stocks covered demand in 1986, but there are some prospects for import needs of 50,000 tons in 1987, because of stock depletion.

Chile is self-sufficient in sugar since higher farm prices for sugar beets from the price band system have spurred production.

### *Brazil*

Brazil is the world's largest sugar cane producer, but only a third to a half of the cane is used to produce sugar. The majority of the cane is used to produce ethanol, some of which is mixed with gasoline, but most is used in specially designed cars that run on pure alcohol. Since almost all new cars in Brazil are run on alcohol only, sugar cane area harvested has expanded rapidly in recent years.

In 1987, Brazilian sugar production and exports may be limited by the need to produce alcohol. Consumers bought more cars and used more alcohol in 1986 than had been planned for. Alcohol stocks had been

oppressively high in 1984 and 1985 as production of alcohol achieved targets, while demand remained more sluggish. Sharply lower alcohol stocks in 1987 are causing the energy sector to press for alcohol production at the expense of sugar exports, and Brazil is postponing some sugar shipments. However, due to its sluggish economy, it is likely that the demand for alcohol has been overestimated. Later in 1987, Brazil may alter its production plans and produce more sugar for export.

## TROPICAL PRODUCTS

### *Central America*

Coffee and bananas play a key role in the economies of most countries of the region, and both commodities are a major source of foreign exchange. The Central American countries produce about 9 million bags (60 kilograms each) of coffee annually or supply 10 percent of world production. El Salvador, Costa Rica, and Guatemala are all leading suppliers, harvesting more than 70 percent of this production. Coffee production in the region is estimated at 9.12 million bags in 1986/1987, up 12 percent from the 8.18 million bags produced in 1985/86. Guatemala alone produces one-third of the total output despite reduced use of inputs, especially of fertilizers and pesticides caused by increased costs, the loss of preferential exchange rates, and growers' cash flow problems.

Although Guatemalan foreign exchange earnings of \$615 million from coffee exports during 1986 were well above the \$451 million earned in 1985, they were not nearly as much as Guatemala government officials had hoped, and stocks were drawn down to relatively low levels. While Costa Rican coffee exports during 1986 were valued at a record \$400 million, an increase of almost \$80 million over 1985, coffee exports totaled only 1.3 million bags compared with 2.3 million in 1985. Costa Rica failed to take advantage of the high coffee prices to export as much as possible, apparently anticipating even better prices that never materialized. As a result, Costa Rica ended the 1985/86 marketing year with stocks of about 1 million bags, compared with a carry-in of 873,000 bags. El Salvador's economy and coffee growers did not benefit as much from the dramatic price increase

because much of the 1985/86 harvest was sold under forward supply contracts before the price rise began in October.

Because of the higher coffee prices, the quota system was suspended on February 1986, and most coffee has been traded in the free market since last December. However, the recent fall in coffee prices may reverse the situation. The current price of coffee is about \$1.00/lb., representing about \$720 million less in foreign exchange earnings for these countries.

Bananas are produced for export everywhere except Belize and El Salvador. The region produced 3.3 million and exported about 2.8 million tons in 1986. Total output was reduced because of labor strikes and diseases.

### *Caribbean*

A few tropical products from the Caribbean reach the United States, but Europe historically has been the primary market. Central and South America are the primary foreign suppliers of tropical products to the United States. Some U.S. producers feared Caribbean producers would react quickly to the free trade provisions of the Caribbean Basin Economic Recovery Act (CBERA) or the Caribbean Basin Initiative (CBI) after enactment in August 1983. Production of a whole host of tropical fruits, vegetables, melons, and nuts, for example, was supposed to expand rapidly. However, to date, only a few success stories have materialized. Production and marketing cost/price ratios are too narrow for many products currently produced in the Caribbean to induce any rapid entry of new producers.

Most islands in the Caribbean will be forced to compete with Mexico, which ships the largest quantities of winter fruits and vegetables to the United States. Coffee, bananas, sugar, molasses, beef and veal, cocoa, and tobacco dominate the trade. Nontraditional tropical products, on the other hand, have shown steadier growth since the early 1980's, until recently.

### *Andean Region*

The Andean region had bumper crops of its major tropical products—bananas, coffee, and cocoa beans. With a record crop of 1.8



million tons of bananas, Ecuador regained its position of largest banana exporter in the world. While Ecuador and Colombia, the region's second largest producer, are forecasting larger crops, black sigatoka disease threatens their banana plantations.

Because of the increase in global coffee prices, more coffee was harvested in 1986 than in 1985. Colombia, the region's largest producer, increased its harvest 13 percent to 744,000 tons. Because of receding prices, the 1987 harvest is expected to drop back somewhat. Coffee rust is a continued threat to coffee production in the region.

Ecuador's cocoa bean crop more than doubled to 128,000 tons in 1986. The Government policy to boost the exportable surplus of cocoa through producer price increases and improved production credit, and the subsequent improvement in cultural practices led to the boost in production. The outlook for 1987 is a drop to a more normal production level.

### *Brazil*

Brazil produces a vast array of tropical products. The most important exports are coffee, FCOJ, and cocoa. Coffee is Brazil's largest export, generating 2.4 billion U.S. dollars in 1986, despite a very small crop devastated by drought during flowering in 1985. FCOJ export volume increased more than 70 percent in 1986, but plummeting prices caused value to fall over 15 percent, to 636 million dollars, down from more than 1.4 billion in 1984. Cocoa and product exports fell in 1986 about the same amount as for FCOJ, generating \$675 million. While FCOJ prices have improved in 1987, and export earnings are likely to increase, prospects for coffee and cocoa depend on how international marketing agreements are resolved.

When Brazil's coffee crop fell from 33 million bags in 1985/86, to less than 14 million bags in 1986/87, the world price moved above the price range of the International Coffee Agreement, dissolving the export quota system. Prospects for a 1987/88 crop similar to the large 1985/86 crop have caused prices to collapse in 1987. However, no agreement has been reached on the reimposition of export

quotas as Brazil has resisted demands that it accept a smaller share of the world coffee market.

## LIVESTOCK

### *Canada*

Slumping grain fortunes will be offset to a certain extent by profitable margins in the hog, cattle, and sheep industries on mixed farms. Hog profits have been ranging from good to exceptional since last May. Low feed prices will keep production costs down through the end of this year, but production increases in 1988 will create downward pressure on hog prices.

The cattle industry is in a transitional phase from liquidation toward expansion, and all livestock sectors are taking advantage of low feed grain prices. Price strengthening going on in the beef sector, however, is dampened somewhat by reduced consumer demand.

Three years ago, lamb prices dropped to 50 cents (Can.) a pound, the lowest price in 8 years. Now prices are at approximately Can. \$1.00 a pound live weight for lamb, and shortages are keeping the price up. An increased demand from China for domestic wool has also pushed prices up 15 cents per pound over last year's 50 cents. Prices for lamb and wool, however, will continue to face strong competition from Australia and New Zealand.

Hog numbers at 10,825,000 were up on January 1, 1987 by 2 percent compared with last year, while cattle and sheep numbers declined. Total cattle and calves decreased 1 percent this year, from 10,590,000 in January 1986. Beef cow numbers increased 1 percent, while dairy cows declined by 2 percent. Total sheep and lamb numbers dropped 2 percent to just under half a million.

Canadian cattlemen don't expect to find themselves in a tariff battle with the United States, but they are preparing just in case. The Canadian Cattlemen's Association has already prepared its defense for public hearings on beef to be held by the U.S. International Trade Commission.

## *Mexico*

The downturn of the Mexican economy since 1982 has greatly affected the livestock industry, perhaps more than any other sector. The real minimum wage has been falling and domestic prices have increased as the Government cut back on consumer price subsidies. In 1986, demand for meat and dairy products was dampened further as economic growth turned negative. These events induced consumers to substitute for relatively cheaper livestock products and to increase consumption of less expensive, nonlivestock products such as grains.

U.S. livestock sales to Mexico were cut 13 percent in 1986, reflecting reduced demand and abundant domestic supplies. The largest export decreases occurred in live cattle (mostly dairy), pork, variety meats, inedible tallow, and hides and skins. Nonfat dry milk (NFM) sales, however, expanded by 73 percent because of low Mexican prices for milk and Government-sponsored programs to improve child nutrition. U.S. sales of NFM in 1986 were worth \$43 million, or 13 percent of total livestock exports to Mexico. NFM is also considered a cheaper alternative to fresh fluid milk and other high protein livestock products. Heavy imports of live dairy cattle over the past few years are expected to reduce the demand for imported NFM beginning in 1987.

Good pasture conditions and a limited domestic market boosted Mexico's exportable cattle supplies in 1986. As a result, the Government raised the live cattle export quota to just more than 1 million head for the 1986/87 season (Sept.-Aug.), the highest ever. The United States is Mexico's primary market for feeder cattle, importing over one million head in 1986. This trade was worth \$282 million to Mexico and accounted for 14 percent of total Mexican agricultural exports to the United States. Mexico's cattle exports in 1987, might continue at last year's level.

## *Central America*

Despite the region's economic and civil problems, production of poultry and swine continued to grow in 1986, registering gains of 4 and 3 percent, respectively, especially in El Salvador and Guatemala. Consumption of

poultry and pork has been increasing at the expense of beef, primarily because of their price competitiveness.

Beef production and exports did not fair well in 1986, mainly because of shortages of slaughter cattle caused by the dry weather. Exports were banned in most countries due to low production. The only exception was Costa Rica, where beef exports increased sharply to 81.2 million pounds. The United States received 94 percent of those exports. In Honduras, elimination of a Government subsidy that kept internal slaughter prices artificially high was the main reason for lower exports.

The Central American countries have a deficit in milk production although production has increased in countries such as Costa Rica, which produced 390 million liters in 1986 and imported none. Honduras is trying hard to increase milk output to cut imports that amounted to \$15 million a year. However, limited processing and adequate storage capacity are impediments to development of the industry.

## *Caribbean*

Livestock of all types are found in the Caribbean. Poultry meat, mutton (including goat meat), pork, and seafoods are common fare, but beef tends to be scarce. Each year a little beef is exported by the Dominican Republic, a few goats and sheep enter inter-island trade, and some seafood is sold, but the region remains a net importer of livestock products.

Few changes in meat supplies have been noted in recent years, except for pork in Cuba, Haiti, and the Dominican Republic. African swine fever forced the total eradication of all hogs on the island of Hispaniola in the early 1980's, but subsequent restocking programs have not been as successful as expected in Haiti and the Dominican Republic. Furthermore, the replacement stock has little wild blood and does not gain rapidly unless raised under feedlot conditions. This is good news for U.S. grain and oilseed exporters, but bad news for small farmers who cannot afford to buy commercially mixed feeds.

This has delayed the restocking programs because small farmers do not want the



replacement pigs. They want pigs that can forage for themselves when mixed feeds are scarce. Consequently, the Caribbean has been forced to import more meat than normal in recent years.

Poultry and fish historically have been imported to maintain supplies when stocks of domestic meats are considered inadequate to meet domestic demand. Pork and broiler production in Jamaica, and at times in other countries, has frequently been limited because of restrictive government policies that delay the timely importation of feed stuffs. Consequently, Jamaica has become the third or fourth largest market for U.S. poultry products abroad. Nevertheless, attempts are being made to expand poultry in the region, which should support a continuing demand for U.S. feedstuffs.

### *Andean Region*

Poultry production had a considerable growth spurt in 1986, which will continue into 1987. Most Andean countries encourage poultry production in periods of economic growth to satisfy growing consumer demand for meat. Colombia alone showed a 6-percent increase in broiler production. After a shortage in early 1986 resulted in great imports and cancelled exports, Peru has taken a new interest in its poultry industry. Egg production also has risen. Since poultry is the principal user of mixed feed in the region, growth in the broiler and egg industries immediately translates into higher intake of feed grains and protein meals. Hog production also increased. Venezuela's hog industry is becoming more commercialized, and more mixed feed is used in the sector.

Dairy production has increased faster than beef. Colombia's beef production has slowed because of depressed prices and guerrilla activities in the rural areas. Beef exports also have declined for several years after Venezuela's import market reversed itself due to exchange rate differentials. Dairy feed production has grown, mostly in Venezuela.

### *Argentina*

Argentina's beef cattle industry has been in the liquidation stage of the cattle cycle

since 1977. Stocks recovered briefly between 1982-84, but beginning in 1984 the slaughter rate increased rapidly and inventories fell.

These developments were the result of competition for pastures by crop agriculture. Higher returns for field crops encouraged switching land out of pastures and into crop agriculture. In some instances, conservation practices (rotating crops and pastures) were abandoned, resulting in a permanent commitment to crop agriculture. The downturn also was due to the change in Europe's position as a major importer of Argentine beef to a major competitor in world beef markets.

Dairy liquidation policies in the EC are largely responsible for declining Argentine beef exports which continue at depressed levels: Only 220,000 metric tons were exported in 1986, compared to the last 5-year average of 400,000 metric tons. Exports in 1987 are forecast at 250,000 metric tons.

In contrast to lackluster beef exports, per capita beef consumption rose to a record 83 kilos in 1986, compared to an average 70 kilos between 1982-84. Surprisingly, higher per capita consumption was accompanied by higher beef prices.

Argentine beef consumption is the world's highest, so the Consumer Price Index gives heavy weight to meat prices, nearly 15 percent. As a result of the supply function inherent in the cattle-raising cycle, the evolution of meat prices tends to generate inflation. Argentina has a long history of inflation and inflation-fighting policies, and these policies are prone to include intervention in the cattle sector, including beefless weeks and price controls.

In 1986, the Argentine Government accumulated intervention stocks of imported pork and poultry. To date, however, beef prices have been allowed to rise, reflecting supply and demand factors in world markets.

Beef production is currently one of the few bright spots in Argentina's farm sector. Grain and oilseed prices have not kept pace with price increases, in contrast, beef prices have managed to keep well ahead of

Argentina: Wholesale price indices

|      | General I/                 | Nonagri-<br>cultural | Agri-<br>cultural | Grains | Oilseeds | Cattle |
|------|----------------------------|----------------------|-------------------|--------|----------|--------|
|      | Annual percentage increase |                      |                   |        |          |        |
| 1982 | 260                        | 250                  | 300               | 235    | 206      | 367    |
| 1983 | 358                        | 354                  | 373               | 330    | 449      | 338    |
| 1984 | 574                        | 586                  | 551               | 663    | 659      | 536    |
| 1985 | 663                        | 694                  | 490               | 623    | 680      | 570    |
| 1986 | 63                         | 53                   | 111               | 62     | 29       | 135    |

I/ Wholesale price index, percentage increase over previous year. Source: Instituto Nacional de Estadística y Censos, Argentina.

agricultural prices. Nonetheless, herd liquidation is expected to continue in 1987, albeit at a slower rate.

### Brazil

The Cruzado Plan froze meat prices in Brazil at the end of February 1986, in direct conflict with the normal seasonal price pattern. Much of Brazil's grazing area has a distinct wet and dry season. As the dry season (June, July, and August) approaches, slaughter increases to reduce herds to the low levels sustainable during the dry season. During and shortly after the dry season, few cattle are available for slaughter. This price cycle is well-recognized, and the Government usually buys a reserve of about 50,000 tons of beef when the prices are low, and imports beef from Uruguay and Argentina to sell beef during the dry season.

Problems began in 1985, when the dry season extended into September and October, and then drought hit the normally moist Southern States in early 1986. The government and cattle producers could not agree on a price to set for acquiring the normal seasonal reserve. When the Government froze all prices as part of the Cruzado Plan, the only way it could increase domestic supplies was to forbid exports and arrange massive imports. Beef exports fell about 100,000 tons in 1986. Brazil bought about 200,000 tons from EC stocks and 90,000 tons from the United States as part of the dairy reduction program, all at low prices of \$415 to \$665 per ton. However, delivery of the imports was delayed and domestic demand increased due to the income effect of the Cruzado Plan. Beef shortages and empty selves were one of the first signs of the Cruzado Plan's failure.

The beef shortages presented an opportunity for expanding pork and poultry domestic sales. Prices provided attractive returns. Production expanded, and poultry exports fell. In late 1986, new export sales of poultry were forbidden.

In 1987, the beef sector should begin to recover from the drought and Government intervention of 1986. Pork and poultry are likely to continue to expand despite the outlook for weaker domestic demand.

## CARIBBEAN BASIN INITIATIVE STIMULATES INCREASE IN NONTRADITIONAL EXPORTS

By  
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Agricultural Economist

During the first 3 years of the Caribbean Basin Initiative (CBI), a few Caribbean and Central American exporters took advantage of the 12-year duty-free treatment rule, under Sec. 218, Title II, P.L. 98-67. However, CBI exporters have had 5 years to plan for the Initiative because Congress took nearly 2 years to draft the bill, which is formally entitled, The Caribbean Basin Economic Recovery Act (CBERA) of August 5, 1983.

The duty-free treatment provisions did not become available to eligible recipients until January 1, 1984, or 2 years after the President announced his proposal for stimulating economic growth in the Caribbean Basin.

Three full years of duty free options have now been available to CBI exporters and much has been learned in the interim. New business ventures, however, are still being developed in



U.S. Imports of selected agricultural products  
from Central America and the Caribbean

| Calendar<br>year<br>imports    | 1979                        | 1980  | 1981  | 1982  | 1983  | 1984  | 1985 | 1986 2/ |
|--------------------------------|-----------------------------|-------|-------|-------|-------|-------|------|---------|
|                                | <u>Million U.S. dollars</u> |       |       |       |       |       |      |         |
| Total 1/                       | 2,085                       | 2,136 | 1,865 | 1,535 | 1,755 | 1,918 | 1814 | 2131    |
| Traditional                    | 1,985                       | 2,039 | 1,745 | 1,418 | 1,617 | 1,739 | 1617 | 1916    |
| Coffee                         | 890                         | 739   | 433   | 506   | 524   | 599   | 645  | 1005    |
| Bananas                        | 268                         | 292   | 360   | 363   | 392   | 400   | 451  | 419     |
| Sugar                          | 335                         | 657   | 636   | 264   | 425   | 429   | 265  | 220     |
| Beef Fr, Frozen<br>(Inc. veal) | 308                         | 226   | 183   | 165   | 133   | 100   | 118  | 131     |
| Molasses                       | 33                          | 31    | 47    | 23    | 29    | 40    | 18   | 24      |
| Cocoa                          | 126                         | 76    | 65    | 68    | 65    | 99    | 84   | 88      |
| Tobacco                        | 25                          | 18    | 20    | 29    | 49    | 72    | 36   | 29      |
| Non-<br>traditional            | 100                         | 97    | 120   | 117   | 138   | 179   | 197  | 215     |
|                                | <u>Percentages of</u>       |       |       |       |       |       |      |         |
| Total                          | 5.0                         | 5.0   | 6.0   | 8.0   | 9.0   | 10.0  | 11.0 | 10.0    |
| Annual                         | -2.0                        | -3.0  | 3.0   | -3.0  | 18.0  | 30.0  | 10.0 | 9.0     |

1/ A simple summation of official U.S. agricultural imports from the Caribbean and Central American regions provides a very close approximation of U.S. agricultural imports from CBI countries.

2/ As Revised May 15, 1987. (Table updated June 17, 1987.)

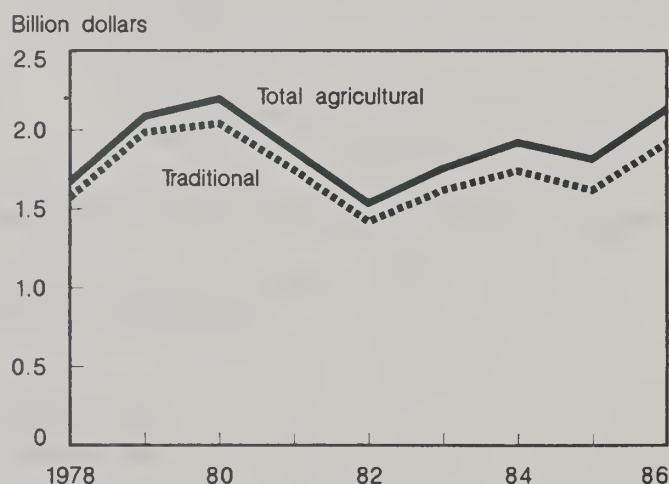
Source: ERS-USDA Trade Statistics.

the private sector. But the process of increasing the flow of CBI agricultural products to the U.S. market has been painfully slow. It takes a lot of time, energy, and money to develop new and self-sustaining economic activity. Tariffs and duties are not the only barriers to trade, as all experienced traders know. Many other classic production, marketing, and nontariff barriers exist, which were not abrogated by the CBI and must still be overcome.

Nevertheless, producers, wholesalers, and exporters in some CBI countries have successfully increased the flow of a few agricultural products to the United States during the first 3 years of the CBI program. But quantifying the changes is more difficult than it might appear because of annual and seasonal price changes, export production variations, and import demand fluctuations. However, the CBI has had a measurable effect on the flow of nontraditional products to the U.S. market.

By definition, "traditional" includes seven commodity groups, which account for most of the agricultural exports of CBI countries to the United States over the past 20 years. The seven are bananas, coffee, sugar, beef, cocoa, molasses, and tobacco. Cotton and some others could be added, but the volume exported is insignificant. "Nontraditional" products in this analysis include all other agricultural commodities not included above.

### CBI Agricultural Exports to U.S.



According to current U.S. trade statistics, the nontraditional group contains at least 450 tariff schedule categories regularly imported from the CBI region. A summary of both traditional and nontraditional agricultural imports from CBI countries over an 8-year period is shown in the accompanying table.

Two years ago, U.S. imports of nontraditional products from the CBI were on the rise again after reaching an unexplained plateau of about \$100 million annually in the late 1970's. U.S. imports of total agricultural products from the designated CBI countries peaked in 1980 after more than 10 years of steady growth. The world recession of the 1982-84 period depressed prices of key exports and generated an apparent slump in the dollar value of CBI exports. Although the slump appeared to be over in 1986, this was misleading because the price of coffee exports temporarily spiked in 1986. However, continuing improvements in nontraditional sales since President Reagan first announced his CBI proposal in 1981 strongly suggest it is working as intended. The magnitude of the gains to date have been small, but they are positive.

Two years ago, however, CBI analysts questioned whether the Initiative could sustain 30 percent annual increases in nontraditional exports as reported during the first year of duty free options. That caution proved wise because nontraditional sales to the United States increased but at a decreasing rate, from 10 percent the second year to only 9 percent the third year. The actual dollar value increases, however, were stronger, averaging more than 10 percent in each of the first 3 years. In conclusion, it appears nontraditional sales will continue to capture an increasing share of total CBI agricultural exports to the United States over the next few years. The Caribbean's main competitors will remain Mexico, Columbia, Chile, and other countries of the Western Hemisphere.

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## PRODUCER SUBSIDY EQUIVALENT CALCULATIONS: BRAZILIAN SOYBEANS

By  
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"Soybeans have been the product in which Brazil has invested the major part of its economic incentives, principally credit allocation and subsidization. At the same time a parallel set of policies were administered which controlled export quantities and imposed taxes, making the net result of the combination of incentives and disincentives very ambiguous." (Translation from CFP, "The Intervention of Government in Agricultural Markets in Brazil" [CFP-IGM, p.14])

The calculation of producer subsidy equivalents (PSEs) allows a measurement of different and contrary policies in one index number that includes the net effect of government intervention. This is specially useful for Brazilian soybeans, where the government intervenes in the market with many changing policies.

### *PSE Results*

The benefits derived by the soybean producer from the availability of subsidized credit are defended as offsetting the taxation

and losses caused by government intervention in the soybean market. This generalization does not necessarily hold. Table 1 shows large year to year changes in the estimates of incentives and disincentives resulting from various policy measures. The estimated PSEs indicate that the Brazilian soybean producer was subsidized slightly in 1982, subsidized substantially in 1983, and suffered a significant taxation in 1984 as a result of policy interventions. On the average, the net effect on Brazilian soybean producers appears to have been slightly negative for the 1982-84 period. The average tax level imposed by the combination of policies employed in the 1982-84 period was about 1 percent of the value of production (after adjusting for inflation by converting the value of production and policy transfers into U.S. dollars at a parity exchange rate).

### *Policy Objectives*

Policies both subsidizing and taxing soybean producers are justified by (1) the need to ensure adequate domestic supply and (2) stimulate the Brazilian soybean crushing



Table 1. Producer subsidy equivalent estimates for soybeans in Brazil

|                                                | 1982                     | 1983      | 1984        |
|------------------------------------------------|--------------------------|-----------|-------------|
| Level of production, mt                        | 13,135                   | 14,750    | 15,700      |
| Producer price, Cr/mt                          | 33,030                   | 79,333    | 345,000     |
| Producer value, Mil. Cr.                       | 433,849                  | 1,170,167 | 5,416,500   |
| <b>POLICY TRANSFERS:</b> Millions of cruzeiros |                          |           |             |
| 1. Research                                    | 2,027                    | 5,161     | 9,225       |
| 2. Subsidized credit                           |                          |           |             |
| o Production credit                            | 86,382                   | 271,554   | 1,060,746   |
| o Marketing credit                             | 62,056                   | 183,536   | 137,100     |
| 3. Domestic & export taxes                     | (85,108)                 | (372,464) | (1,597,030) |
| 4. Market interventions                        | 67,630                   | 17,526    | (180,091)   |
| 5. Exchange rate adjustment                    | (122,659)                | 47,146    | (149,833)   |
| <b>TOTAL TRANSFERS:</b>                        |                          |           |             |
| Millions of cruzeiros                          | 10,327                   | 152,460   | (719,882)   |
| Millions of U.S. dollars                       | 91                       | 909       | (1,384)     |
| Cruzeiros per metric ton                       | 786.22                   | 10,336.27 | (45,852.35) |
| U.S. dollars per metric ton                    | \$3.66                   | \$19.88   | (\$27.67)   |
| Percent of crop value                          | 2.38                     | 13.03     | -13.29      |
| PSE as a percent of crop value                 | 1982-84 Weighted Average |           |             |
| Current cruzeiros 1/                           | -7.94                    |           |             |
| Parity exchange rate 2/                        | -1.23                    |           |             |

1/ Calculated by dividing sum of total transfers by the sum of the producer value for 1982-84.

2/ Calculated as above except adjusted by a parity exchange rate.

SOURCE: ERS estimates from Brazilian data.

industry. The Government wants inexpensive and abundant food supplies. Yet, chronic shortages of soyoil are caused by domestic price controls. The strategy of maintaining low prices extends to soybean meal to provide cheap inputs for the mixed feed industry. The drive to expand the crushing industry comes from the "infant industry" argument and attractiveness of exporting valued-added products over raw materials. The mix of policies employed has reduced soybean production costs through subsidized credit, providing domestic supplies at relatively lower prices to meet domestic needs while stimulating exports of processed products.

Brazil has expanded its soybean crush and increased significantly the proportion of soybeans exported as processed product. Soybean crush more than doubled in the 1960's, from 185,000 to 612,000 metric tons, and increased nearly tenfold between 1970 and 1979, from 932,000 to 9.1 million metric tons. By 1980, Brazil had reached a crush of 13.0 million metric tons, a level more or less maintained since then. Until 1975, Brazil exported roughly equal amounts of raw soybeans and soybean meal. From 1975 to 1980, the proportions changed dramatically. In 1980, 1.5 million metric tons of raw

Estimated price distortions for Brazilian soybeans

| Year                | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 |
|---------------------|------|------|------|------|------|------|------|------|
| Price Distortion 1/ | -28  | -20  | -18  | -33  | -20  | -4   | -21  | -24  |

1/ Distortion = (actual producer price - border parity price) divided by the border parity price X 100

SOURCES: CFP estimates at harvest for 1977 to 1983, ERS estimate for 1984.

soybeans were exported compared to 7.3 million metric tons of soybean meal, a proportion that has continued through the 1980's.

During the 1980's, the disincentives to soybean producers caused by taxes and intervention in the market probably served to reduce the growth in production, domestic supply, and exports. As a result of disincentives, it has been argued that the country lost its impetus for expansion and the soybean sector stagnated [CFP-IGMA, p. 14]. Growth in area and production in the late 1970's and 1980's was much slower than in the late 1960's and early 1970's.

## Policy Transfers

### Research

Government spending on creating and disseminating improved technology can be considered an indirect subsidy to farmers since at least some portion of the benefits of higher yields and lower production cost should accrue to producers as higher income. Public research expenditures (1980-81) were about 1.0 percent of agricultural value-added, a substantially higher proportion than spent in other Latin American countries. It is difficult to estimate and allocate returns from soybean research investments in Brazil. Consequently, the transfer to the soybean sector was estimated by multiplying the share of soybeans in the value of total agricultural output times Federal research expenditures. Research was a relatively small transfer as compared to other policy instruments.

### Credit

Subsidized credit for both production and marketing was available to soybean producers in generous amounts compared with other crops. In 1981, soybeans represented

approximately 15 percent of the value of the official credit distributed for crop production. In that same year, soybean's share of the value of total crop production was estimated to be approximately 16 percent. While the soybean share of total crop value (in constant 1976-78 prices) remained about the same through 1984, the percentage of production credit allocated to soybeans increased to 22 percent. Until 1984, soybeans also received the lion's share of official marketing credits.

From 1978 through 1983, the real value of soybean production credit provided by the national rural credit system varied annually, with no apparent trend, between 120 and 170 billion (as measured in constant 1981 cruzeiros). In 1984, however, production credit availability dropped markedly. Changes in the amount of credit provided can be attributed to changes in Brazil's monetary and financial conditions. The comparatively lower levels of credit availability in 1981 and 1983 are reflected in the PSEs by relatively smaller transfers to soybean producers in 1982 and 1984 crop years. (Production credit is obtained for planting in October of the year prior to harvest under the terms prevailing at that time.) Credit subsidies represented 23 percent of the value of soybean production for the crop harvested in 1983 and 20 percent for the crops harvested in 1982 and 1984.

During the same period the real value of credit for marketing had been declining steadily, again with the most dramatic decline occurring in 1984. This decline in marketing credit is reflected in a major reduction in its relative value as a subsidy to producers in 1984.

Brazilian soybean producers received both a direct and an indirect subsidy by borrowing from the national agricultural credit system. The direct subsidy resulted from farmers being charged rates of interest lower than alternative prevailing rates. The indirect subsidy results from repaying fixed loan obligations with cheaper currency due to high rates of inflation.

Conceptually, farmers would be receiving a subsidy if the interest rates they were charged were lower than alternative commercial market rates. Choosing the alternative interest rate against which agricultural credit programs can be compared

Table 2. Soybean production credit subsidy estimated for Brazil

|                                                        | 1981/82               | 1982/83 | 1983/84   |
|--------------------------------------------------------|-----------------------|---------|-----------|
|                                                        | Millions of Cruzeiros |         |           |
| A. Amount of production loans                          | 127,291               | 290,863 | 681,229   |
| B. Estimated interest due                              |                       |         |           |
| 1. Rural credit system rates                           | 43,912                | 95,420  | 500,769   |
| 2. At "Treasury Bill" rate                             | 84,805                | 248,566 | 1,105,811 |
| 3. Direct interest subsidy (line 2 minus line 1)       | 40,893                | 153,146 | 515,043   |
| C. Inflation effect                                    |                       |         |           |
| 1. Depreciated value of a cruzeiro loaned at repayment | 0.73                  | 0.69    | 0.54      |
| 2. Total principle + interest of the loan to be repaid | 171,203               | 386,283 | 1,181,998 |
| 3. Implicit inflation subsidy 1/                       | 45,488                | 118,408 | 545,703   |
| D. Total credit subsidy                                | 86,381                | 271,554 | 1,060,746 |

1/ Calculated by multiplying (1.0 minus CI) x principle and interest repaid

SOURCES: ERS estimates based upon Government of Brazil and International Financial Statistics data.

is an important step in estimating subsidies. A conservative comparison is to contrast the interest rate paid on government borrowing with the cost of agricultural loans. Soybean producers in Brazil received a direct subsidy because they were charged interest rates lower than the rate the Treasury paid on its own borrowings. If farmers had paid at least the same rate as the government did on the Treasury Bills it issued, the interest cost on soybean production and marketing loans would have been considerably higher. (See B in Tables 2 and 3.)

A major change in rural credit policy, initiated in July 1983, started Brazil on a path toward phasing out the subsidy to agricultural credit derived from fixed interest charges which were well below the prevailing inflation rate. From December 1980 through December of 1982, legal rates of interest charged on production loans were 45 percent where soybeans are grown. These rates were adjusted for the first half of 1983 to 60 percent. Meanwhile, the annual inflation rate measured by the wholesale price index was 90, 104, and 240 percent, respectively, for the years 1981, 1982, and 1983. Beginning in July 1983 producers were no longer charged a fixed rate of interest, but instead paid a variable interest rate indexed to inflation. The interest rate for production credit for the 1983-1984 crop was calculated based upon 85 percent of monetary correction plus 3 percent. The monthly interest on outstanding production loan balances averaged 8.4 percent per month, or about 100 percent on an annual



Table 3. Soybean marketing credit subsidy estimated for Brazil

|                                                        | 1981/82               | 1982/83 | 1983/84 |
|--------------------------------------------------------|-----------------------|---------|---------|
|                                                        | Millions of Cruzeiros |         |         |
| A. Amount of credit loans                              | 133,623               | 295,025 | 251,194 |
| B. Estimated interest due at:                          |                       |         |         |
| 1. Rural credit system rates                           | 30,061                | 88,462  | 146,972 |
| 2. "Treasury Bill" rate                                | 69,617                | 255,049 | 232,772 |
| 3. Direct interest subsidy (line 2 minus line 1)       | 39,557                | 166,587 | 70,683  |
| C. Inflation Effect                                    |                       |         |         |
| 1. Depreciated value of a cruzeiro loaned at repayment | 0.70                  | 0.53    | 0.56    |
| 2. Principle + interest repaid                         | 163,683               | 383,486 | 395,528 |
| 3. Implicit inflation subsidy                          | 49,056                | 180,986 | 172,477 |
| D. Total credit subsidy                                | 88,613                | 347,573 | 243,115 |

1/ Calculated by multiplying (1.0 minus C1) x principle and interest repaid.

SOURCES: ERS estimates based upon Government of Brazil and International Financial Statistics data.

basis, for the 1983-84 crop loan period. While more than double the previous crop years' interest rates, there was still a major difference between inflation (approximately 250 percent per annum) and the rate of interest charged in the 1983-84 crop year. The percent of monetary correction assessed to most of Brazil's soybean producers was adjusted to 100 in July 1984.

The indirect subsidy results from inflation in general price level that occurs between planting and harvest. If this price level doubles, as has been common in Brazil, producers repay their principle plus interest obligations with only half of the equivalent amount of the inflated currency at harvest time. The difference between the loan's depreciated value and the original obligation is one measure of the subsidy to the farmer due to inflation. As can be seen in item C-3 in Table 2., with high rates of inflation this difference becomes large. A similar subsidy occurs with marketing loans (item C-3, Table 3).

### Taxes

A value-added tax (ICM) is charged on Brazilian soybean exports which, in turn, reduces the domestic price to soybean producers. The ICM tax drives a 13-percent wedge between world prices and domestic Brazilian prices.

In addition to the ICM, an export tax was imposed in February 1983 to prevent windfall profits on exports following a large currency devaluation. Initially, the export tax was set

Table 4. Comparison of actual and border equivalent producer prices for soybeans in Brazil

|                                                                  | 1981                              | 1982             | 1983    | 1984    |
|------------------------------------------------------------------|-----------------------------------|------------------|---------|---------|
|                                                                  | Cruzeiros per metric ton          |                  |         |         |
| A. F.o.b. value at port                                          | 24,627                            | 41,445           | 122,720 | 493,767 |
| 1. Export Tax (5%)                                               | 0                                 | 0                | 6,136   | 24,688  |
| 2. ICM tax (13%)                                                 | 3,201                             | 5,388            | 15,954  | 64,190  |
| 3. Other taxes                                                   | 85                                | 311              | 920     | 3,703   |
| 4. Commercial expenses port to interior                          | 2,269                             | 4,192            | 7,937   | 28,148  |
| B. F.o.b. value-interior                                         | 19,072                            | 31,554           | 91,773  | 373,038 |
| 1. Local marketing costs                                         | 288                               | 320              | 2,100   | 7,427   |
|                                                                  |                                   | Per 60 kilograms |         |         |
| 2. Subtotal per 60 kg                                            | 1,127                             | 1,874            | 5,380   | 21,937  |
| 3. Social security tax                                           | 28                                | 47               | 135     | 548     |
| C. Estimated producer price                                      |                                   |                  |         |         |
| 1. Taxes paid                                                    | 1,099                             | 1,827            | 5,246   | 21,388  |
| 2. Without taxes                                                 | 1,324                             | 2,216            | 6,761   | 27,492  |
| D. Actual producer price                                         | 1,054                             | 2,136            | 5,317   | 20,700  |
|                                                                  | Cruzeiros at parity exchange rate |                  |         |         |
| E. Estimated producer price (taxes paid) adjusted by parity rate | 1,439                             | 2,387            | 5,054   | 21,961  |

SOURCES: This table draws upon an analysis done by the Brazilian Commission for Financing Production (CFP) entitled, "An Analysis of the Distortions of Domestic Prices in Relation to Border Prices," adjusted and updated by the authors.

at 30 percent but was reduced to 20 percent, and further reduced to 5 percent by March. Since only the early harvest in Parana might have been affected by higher rates, it is reasonable to assume that the majority of the 1983 harvest was affected by the tax at the 5 percent level. This tax was continued through the 1984 season.

The estimated cost to producers of the ICM and other taxes is given in line 3 of Table 1. As may be seen, the ICM tax, export taxes, and other minor taxes represent a major cost to the producer. In fact, taxes are estimated to have a negative impact on the soybean producers' returns equivalent to 20, 32, and 29 percent of crop value for 1982, 1983, and 1984 respectively.

From Table 4 it is observed that the estimated producer price without taxes, or the border parity price representing the free market without government intervention, was above the actual price the farmer received. This means Brazilian soybean farmers earned less for their crop than would have been the case had there been free access to the export market and no taxes on the product. According to the CFP's study of price distortions, actual prices to farmers for soybeans have been less than border parity prices since at least 1977.

### Exchange Rates

The soybean producer has been implicitly taxed because the Brazilian cruzeiro was

Table 5. Comparison of border parity prices using official and estimated purchasing power parity exchange rate 1/

|                                               | 1982     | 1983     | 1984      |
|-----------------------------------------------|----------|----------|-----------|
| -- Cruzeiros/ 60 Kg bag --                    |          |          |           |
| Border parity price at official exchange rate | 1,827.17 | 5,245.88 | 21,388.24 |
| Border parity price at parity exchange rate   | 2,387.47 | 5,054.09 | 21,960.85 |
| Actual producer price                         | 2,136.10 | 5,317.17 | 20,700.00 |

SOURCES: ERS estimate of border parity prices. Actual producer prices are average for May through July from the Getulio Vargas Foundation.

overvalued against other currencies. The f.o.b. dollar export price would have yielded additional cruzeiros at a more realistic exchange rate, and the producer would have received higher prices. This was clearly the case in 1982, somewhat less important for 1984, and not true of 1983.

To test the contribution of exchange rate overvaluation as an implicit taxation of soybean producers, a purchasing power parity exchange rate was calculated and a border parity price to the farmer was estimated based upon this exchange rate. The parity exchange rate was estimated by taking the monthly wholesale price index for Brazil over the U.S. wholesale price index times a 1980 shadow exchange estimated by the World Bank. The f.o.b. price of soybeans was then converted to cruzeiros at the parity exchange rate and border parity prices were recalculated. The comparison of border parity prices at the official and parity rates is shown in Table 5.

An exchange rate closer to the estimated parity rate would have implied a significantly higher price to farmers in 1982 when the Brazilian cruzeiro was greatly overvalued. Given 1983's major devaluation, the situation was reversed; border parity prices at official rates were actually larger than with the parity exchange rate. In fact, the parity exchange rate estimated suggests that the cruzeiro was undervalued during the 1983 harvest, which was to the advantage of the soybean producers. (It should be recalled, however, that a direct export tax was imposed in that year to offset the advantage represented by the devalued exchange rate.) While once again overvalued in the 1984 harvest season, the cruzeiro's value was not sufficiently out of line as to have a major impact on producer prices.

## Market Interventions

In addition to taxes, the Brazilian Government has intervened in the soybean and soybean products market using a number of different policy mechanisms. Since there have been multiple objectives for market intervention -- increasing production, assuring adequate domestic supplies, expanding exports (particularly of processed products), and stimulating the domestic processing industry -- the net impact on the soybean producer of these Government actions for any given year is not always clear. The ultimate size of the harvest, specific government actions based upon forecasts of supply and domestic needs, and the timing of market interventions did result in either protection or penalization of the producer. The analysis presented in the CFP study of price distortions suggests that until the harvest of 1982, border parity prices minus taxes were consistently higher than actual producer prices. From 1977- 1981, producers ultimately were taxed by the combination of market interventions employed. However, during 1982-84, farmers appear to have been both protected and implicitly taxed by market interventions. As may be seen in Table 1 (line 4) and Table 4 (comparing lines C and E), the price that the producer received locally in 1982 and 1983 was higher than the world price less the applicable commercial costs and taxes. This suggests that market interventions, other than taxes, resulted in an implicit subsidy or protection of the soybean producer for these years. The situation is reversed for 1984. In that year, the border parity price minus taxes was once again more than the actual producer price. This result indicates that the soybean producer was implicitly taxed by the government actions taken in the 1984 crop year.

Government interventions in the soybean and soybean product markets can result in an implicit subsidy in 1 year and a tax in another. Brazil's market interventions over the last decade can be categorized by their intended purpose as follows:

1. Interventions to increase production:
  - o Minimum producer prices - initiated in 1946
2. Interventions to assure domestic supplies at "acceptable" prices:
  - o Registration and licensing of exports - initiated in 1958



- o Export quotas
  - o Domestic quotas, filled prior to permission for exports
  - o Contingency schemes, where a ratio was established between domestic sales and allowable exports
  - o Suspension of exports for given periods
  - o Price controls on soybean oil and oilmeal sold domestically
  - o Direct subsidies on domestically consumed oil and meal
  - o Imposition of export taxes added to the value-added (ICM) tax
3. Interventions to stimulate domestic crushing industry
- o Lower value-added (ICM) export taxes charged for soybean products than for raw soybeans
  - o Exemptions of oil exports from value-added (ICM) tax
  - o Concessionary credit for exports of soybean oil and meal, but not for raw soybean exports
  - o Credits against value-added tax (ICM) for soybean oil exports
  - o Exemption of income tax on earnings from oil exports
  - o "Drawback" scheme: soybeans imported for reexport as byproducts free from import taxes and with special credit arrangements
  - o Exemption of taxes on profits from hedging on external futures markets, while losses can be charged as business expenses

### Policy Implementation

The relevance of the PSE calculation is the way it summarizes the effects of so many complicated rules and regulations. With a careful look at the policies employed in each of the following years, the relationship between specific market interventions and the domestic prices received by farmers can be seen.

#### *1982 --- Free Trade Commitment*

The Brazilian Government committed itself to free trade in soybean and product exports for the 1982 crop. This commitment was respected despite a historically small crop due to somewhat reduced plantings and poor

weather. As a result, there was apparently keen competition for domestic supplies since there were no quotas on exports, and domestic price controls had been lifted for soyoil and soybean meal early in the previous year. Comparing the domestic harvest of about 13.0 million tons with the nation's oilseed crushing capacity of approximately 27.0 million tons, it would be expected that demand for soybeans during the 1982 harvest was very strong. Indeed, the actual prices received by farmers were calculated to be nearly 17 percent above border parity prices minus taxes.

At midway through the harvest, the Government took actions to facilitate imports by exempting importers of beans and soyoil from a tax on the purchase of the foreign exchange required to obtain these products on the world market. Imports under the drawback system, which allows processors to import beans duty free for crushing and reexport, were eligible for credit at interest rates of 4.5 percent per month. This rate was well below commercial interest rates or the pace of inflation, which averaged more than 8.0 percent per month during 1982. The combination of a reduced domestic harvest and incentives to import soybeans resulted in the rare phenomenon of Brazil importing more soybeans than it exported in 1982.

Beginning in June, the Government did take actions that altered incentives for importing and exporting soybeans and products. In June, concessionary credit for soyoil exports was suspended. Later in the year, the decision was made to halt all further purchases of soybeans under the drawback system and then to prohibit all imports of soybeans and products. These actions were said to have been taken in an attempt to achieve the largest possible trade balance for the year.

#### *1983 - Devaluing the Cruzeiro*

The year began with a major devaluation of the cruzeiro against the dollar. Since there were still no quantity restrictions on exports, the devaluation could have been a major stimulus to domestic soybean prices. The Government offset that advantage immediately by imposing a 30-percent export tax on soybeans and soybean products. This export tax was in addition to the value-added taxes applied to these exports. Shortly

thereafter, the new export tax was reduced to 20 percent. By harvest time the export tax had been further reduced to 5 percent. Concessional credit was available for soybean meal and soyoil exports, but loan levels were reduced. In June, interest rates on these credits were raised from 40 to 60 percent, which was still concessional given the prevailing inflation rate. Further, domestic price controls were reimposed in the early part of the year. In all, these actions could be expected to reduce the strength of the crusher's demand for domestic soybeans.

Nonetheless, the differences in the value-added (ICM) tax on exports of soybeans and products continued as a stimulus to exporters of processed soybean products. Since 1980, the ICM charged on raw soybeans exported has been 13 percent compared to 11.1 percent on meal and 8 percent on soyoil. In addition, drawback imports remained closed through the harvest period, so crushers were dependent upon domestic soybeans as a source of supply. The combination of policies that prevailed, in conjunction with a larger harvest than in 1982, appears to account for the decline in the positive price wedge between the producer price and the border parity price minus taxes.

In the second half of 1983, policy actions taken lead to the conditions prevailing at the 1984 harvest. In late June, the Secretariat of Planning announced that price increases on some items would be limited to 80 percent of the nation's inflation index, including crude soybean oil. This meant that the domestic price of crude soyoil only could be raised 80 percent of the pace of inflation of the cruzeiro. In August, however, agreement was reached to eliminate price controls on domestic soyoil and soybean meal. Industry agreed to limit the price increases on canned oil until September after which oil prices would be free. In that same month, the concessional credits for soybean oil and meal were suspended, oil imports free of tax were authorized, and the Government temporarily forbid additional export registrations. The temporary suspension of exports was done to assure domestic supplies and avoid undervaluing exports. The resumption of exports was soon worked out between the Government's export agency, CACEX, and the industry under new stricter rules for registering and reporting export sales.

In early September, authorization for drawback imports was again given, but without concessional credit. At that time it was expected that little use of drawback authorization would be made by the industry without the special credit provisions. Next, the National Monetary Council authorized the import of soybeans, meal, and oil. Finally, the Central Bank extended the period on the export commitments related to concessional export credits through May 1984 to allow shipments from next year's crop. Exporters were also allowed to deduct sales into the domestic market, through the end of 1983, from their export commitments. In October, CACEX ceased registering any new exports of soybeans or soyoil from the 1983 crop, and registered soybean meal exports on a case-by-case basis. The general direction of actions taken in the second half of 1983 was weighted heavily toward the objective of assuring domestic supplies.

The prices received by farmers for their 1983 crop were calculated to be 1.36 percent above the border parity price estimate minus taxes. Thus, except for the tax burden, the farmer received approximately what would have been expected under a free market system permitting unrestricted access to the world market.

#### *1984 -- Limiting Exports*

Restrictions on soybean and product export quantities persisted through the 1984 harvest season. Uncertainty resulted from frequent changes in the quotas, and the lack of incentives to exporters that had been available in the past is reflected in prices received by producers in 1984. Indeed, actual prices received by farmers were 3.2 percent below the estimate of border-parity prices minus taxes for this year.

The 1984 harvest began with suspensions of export registrations for the new crop. The stated rationale for the February suspension was an attempt to bolster international prices by holding the Brazilian crop off the market. It was March before the export suspension was partially lifted, and then an elaborate quota system was imposed which underwent numerous changes during the 1984 harvest. On March 12, registrations were reopened, but exporters were limited to 40 percent of their exports for the same month in 1983.



Registrations were limited to shipments only through May for soybeans, April for soybean meal, and June for soyoil. At the end of March, quotas were increased to 60 percent of a company's 1983 exports and the periods extended to June shipments for soybeans and meal, and July for soyoil. Under the new rules, companies were no longer limited to 60 percent of their 1983 exports for an individual month, but could instead export their full quota for the extended period at any time. Also, a company could convert its allotment of raw soybean exports to processed products.

In April, the 60-percent limitation on soybean meal was eliminated, and exporters could register any amount for shipment prior to the end of June. In early May, the 60-percent limit on soybeans was removed, with the shipment period extended through July. This was almost no sooner done than registrations of soybeans and soyoil were closed again. By mid-May, registrations of soyoil exports were opened again, this time at 80 percent of 1983 exports. Soybean export registrations remained closed, but soybean meal exports could continue to be made without quantity restrictions. Soyoil export

registrations were partially closed once more, and then registrations were reopened with soybeans limited to 100 percent of 1983 exports, soyoil limited to 80 percent of the previous year, and soybean meal without limit for shipments through the end of July. The week of June 25th, CACEX opened registrations for shipment beyond July under the same quotas. In August, a global quota was established of 1.3 million metric tons for soybean exports, 850,000 metric tons for soyoil, and unlimited quantities of soybean meal. In that same month, free trade in soybeans and product exports was announced for the next crop year.

While all of these changes were occurring in export quotas, other policy actions were also taken. Beginning the first of January, interest rates on concessionary export financing were raised to 70 percent of the change in the monetary correction index plus 3 percent. Then in March, concessionary financing of exports under Resolution 674 was discontinued. Imports under the drawback system were again permitted, but without special financing. Clearly, some of the specific incentives to exporters that had been available in the past were no longer present.

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## THE DEBT: U.S. AND LATIN AMERICAN TRADE

By

Elaine Grigsby and John Link  
Agricultural Economists

For the past decade, the debt of developing countries, particularly in Latin America, has increased sharply. In the past few years, the massive increase in the debt has strained domestic and international economic affairs for both governments and private sectors. There are many reasons for concern about the debt including its impact on a country's ability to import goods and services. Debt may be the main reason U.S.

farm exports to Latin America have dropped recently, and it "will severely limit a country's ability to purchase goods in the world market during the 1980s" resulting in lower growth that will also lower imports in the future. 1/

Latin America's long term debt increased by 12 times from \$28 billion in 1970 to \$324 billion in 1984 and currently accounts for two-thirds to three-fourths of the world total. 2/

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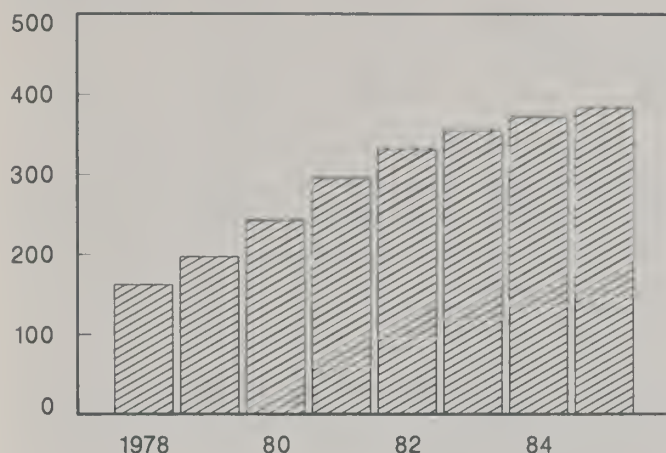
1/ Joint Economic Committee, Congress U.S., *The Impact of the Latin American Debt Crisis on the U.S. Economy*, May 1986. Shane, Matthew D. and Stallings, David, *FINANCIAL CONSTRAINTS TO TRADE AND GROWTH: THE WORLD DEBT CRISIS AND ITS*

*AFTERMATH*, FAER-211, December 1984, USDA, Economic Research Service.

2/ World Bank, *World Development Report, 1986*, p.212, table 17.

## Total External Debt for Latin America and Caribbean

Billion dollars



Latin America long-term debt: 1970 - 1985

| Year            | 1970 | 1975 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 |
|-----------------|------|------|------|------|------|------|------|------|
| Billion Dollars |      |      |      |      |      |      |      |      |
| Debt            | 28   | 68   | 173  | 209  | 237  | 286  | 313  | 324  |

SOURCES: *External Debt of Developing Countries*, World Bank, 1986-1987 Edition.

The region's total debt is currently near \$380 billion, requiring servicing equal to nearly one-third of the region's exports. Latin America accounted for seven of the top 11 major debtor nations in 1985: Brazil accounted for \$108 billion; Mexico, \$106; Argentina, \$53 billion; Venezuela, \$34 billion; Peru, \$15 billion; and Colombia, \$14 billion. 3/ In 1984, the long-term debt service as a percentage of exports for these countries ranged from a high of nearly 50 percent for Mexico to 25 percent for both Peru and Colombia. 4/

The region experienced strong economic growth during the fifties, sixties, and through the mid 1970's. The region's demand for domestic and imported goods and services increased steadily through most of the 1970's. At the same time, the population growth rate declined, urbanization increased, and agriculture's share of GDP continued to fall. Imports rose sharply as consumption grew faster than output, making many countries

3/ *The Washington Post*, Sunday, January 11, 1987.

4/ World Bank, *World Development Report*, 1986, p. 212, table 17.

more dependent on imported food. Overvalued currencies made it easy to borrow to import, and debt levels increased sharply. The early 1980's were a time of recession in the developed countries, which compounded the debt problem since demand for most of the region's exports declined. Tight money policies in the developed world caused higher interest rates, while at the same time foreign private lenders sharply curtailed lending.

Most countries in Latin America experienced a sharp slowdown in growth during the period 1973-84 compared to 1965-73.5/ With the slowdown in population growth, per capita GDP grew but at much slower rates than in the earlier period. The period 1982-85 saw even slower growth. Austerity programs in the 1980's, which arose because of debt servicing requirements, limited financial resources, which combined with other factors resulted in reduced demand.

From the early 1970's to 1981, world trade expanded strongly (about 17 percent annually). For the period 1981 to 1985, world trade declined (exports by about .5 percent per year and imports by about .1 percent per year). Since Latin America accounted for most of the world debt after 1981, it might be assumed that debt was an important factor affecting trade, forcing Latin America's share of world imports downwards as financial resources were drawn to service the debt.

In the case of nonfarm imports, that is what happened in Latin America from 1979/81 to 1982/85. Total imports fell, and the region's share of world imports declined from 6.1 percent to 4.6 percent. Latin America's share of world exports increased slightly from 4.4 percent to 4.7 percent.

World agricultural trade also expanded strongly during the period from the early 1970's to 1981, averaging more than 13-percent growth annually for both exports and imports. For the early 1980's, both declined about 3 percent per year. Similar to nonfarm trade, the total value of trade shrank. One might expect farm trade to react in the same manner as nonfarm trade. However, two other factors enter the picture, weather and food. First, agricultural trade in

5/ World Bank, *World Development Report*, 1986, page 182, table 2.



## U.S.-Latin America trade: 1970 - 1986

| Year                              | 1970  | 1975   | 1980   | 1981   | 1982            | 1983   | 1984   | 1985   | 1986  |
|-----------------------------------|-------|--------|--------|--------|-----------------|--------|--------|--------|-------|
| <u>Exports to Latin America</u>   |       |        |        |        | Million Dollars |        |        |        |       |
| Nonfarm                           | 5,788 | 14,651 | 38,011 | 34,929 | 27,716          | 20,154 | 23,505 | 17,028 | n.a.  |
| Farm                              | 688   | 2,274  | 6,172  | 6,367  | 4,438           | 5,213  | 5,285  | 4,224  | 3,641 |
| <u>Imports from Latin America</u> |       |        |        |        |                 |        |        |        |       |
| Nonfarm                           | 3,533 | 12,466 | 29,657 | 32,068 | 31,957          | 35,246 | 40,130 | 38,806 | n.a.  |
| Farm                              | 2,254 | 3,611  | 7,255  | 6,544  | 5,652           | 6,177  | 7,173  | 7,639  | 8,229 |

SOURCES: Economic Research Service, Foreign Agricultural Service, USDA; International Financial Statistics, 1986.

Latin America is tied closely to production, which is weather-dependent. Second, while a shortage of financial resources may limit nonfood imports, it seems likely that food imports would have a high priority for governments faced with rising populations.

Latin America's share of world farm imports also declined, from 5.3 percent to 4.7 percent from the late 1970's to the early 1980's. But that represented an 11-percent drop in its share compared to a more than 25-percent drop for nonfarm imports. The smaller percentage drop in farm imports most likely was due to the need to supply urban populations with food (and production increases). Total food production in this period increased 9.1 percent. The region's share of world farm exports increased from 13.8 percent to 14.2 percent.

The U.S.'s share of world agricultural imports was up nearly 11 percent to slightly more than 8 percent of the world total for the period 1982/85 compared to 1979/81.

However, on the export side, the U.S.'s share fell 7 percent to a 17.2-percent share of the world's farm exports.

Latin America is an important trading partner with the United States. In 1986, Latin America accounted for \$30 billion, about 15 percent, of total U.S. exports. U.S. agricultural exports to the region were \$3.6 billion, about 14 percent of the U.S. total. Latin America supplies 11 percent of total U.S. imports, or \$42 billion, while accounting for nearly 40 percent, \$8 billion, of U.S. farm imports.

When looking at the total U.S. farm trade picture with Latin America, the United States increased its share of a declining market most likely because of the Export Enhancement Program. However, when looking at some individual commodities, the picture is quite different. The U.S. share of the Latin American market and world market has declined. In addition, while the Latin debt has affected its farm trade, the more serious impacts of the debt may well be in the future as debt affects the region's growth.

# SOUTH AMERICAN SOYBEAN AND PRODUCT EXPORTERS

By  
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Agricultural Economists

Brazil, Argentina, and Paraguay are the leading competitors in the world soybean and product markets otherwise dominated by the United States. The soybean harvest starts in February in Brazil and April in Argentina and Paraguay. In 1987, these competitors' soybean output was an estimated 25.6 million tons, compared to 54.6 million tons harvested in the United States beginning in September. Preliminary estimates indicate that the South American exporters' production is up 3.6 million tons from last year's drought-reduced level.

South American exports of soybeans and byproducts are a forecast 18.9 million tons, compared to U.S. exports of 26.1 million tons. Soybean exports are expected to reach 6.2 million tons, or about 25 percent of production. In comparison, U.S. exports are forecast at 19 million tons, or 35 percent of production.

The competitors' soybean crush is a forecast 18.2 million tons, compared to about 31.7 million for the United States. Assuming a normal extraction rate, the competitors' meal

production is estimated at 14 million tons, compared to 25 million in the United States. The competitors export about 80 percent of their soybean meal output, whereas the United States exports about 25 percent. Thus, soybean meal exports from South America are forecast to be almost twice U.S. export levels, or 11.2 million tons compared to only 6.6 million tons.

The following trends emerge from a comparison of soybean data for the two periods 1980/81-1983/84 and 1984/85-1986/87:

- o Competitors' soybean production increased 22 percent and soybean crush increased 13 percent, while U.S. production and crush remained unchanged.
- o Competitors' exports of soybeans increased 42 percent, up 1.7 million tons, while U.S. soybean exports declined 20 percent, down 4.7 million tons.
- o Soybean meal exports from the competitors increased 15 percent, up 1.4 million tons, while U.S. soybean meal exports declined 12 percent, down 0.8 million tons.

Area, production, and use of soybeans and products by the United States and Competitors 3/

| Year 1/                             | 1980/81-<br>1983/84 | 1984/85 | 1985/86 | 1986/87<br>2/ |
|-------------------------------------|---------------------|---------|---------|---------------|
| (million tons and million hectares) |                     |         |         |               |
| <u>United States</u>                |                     |         |         |               |
| Area harvested                      | 28.11               | 26.76   | 24.92   | 24.05         |
| Production                          | 54.21               | 50.64   | 57.11   | 54.62         |
| Soybean export                      | 23.21               | 16.28   | 20.14   | 19.05         |
| Crush                               | 28.66               | 28.03   | 28.66   | 31.71         |
| Soymeal export                      | 6.29                | 4.46    | 5.45    | 6.58          |
| Soyoil export                       | 0.87                | 0.74    | 0.57    | 0.50          |
| <u>Competitors 3/</u>               |                     |         |         |               |
| Area harvested                      | 11.14               | 13.97   | 13.35   | 13.58         |
| Production                          | 19.72               | 25.98   | 22.00   | 25.60         |
| Soybean export 4/                   | 3.99                | 6.88    | 3.89    | 6.17          |
| Crush                               | 15.32               | 17.29   | 16.56   | 18.23         |
| Soymeal export 4/                   | 9.47                | 11.27   | 10.11   | 11.23         |
| Soyoil export 4/                    | 1.26                | 1.37    | 0.92    | 1.52          |

1/ U.S. soybean marketing year (Sep/Aug) (t) and Southern Hemisphere soybean local marketing year (t-1), where t = year. 2/ Preliminary or forecast. 3/ Competitors defined as aggregate of Brazil, Argentina, and Paraguay. 4/ Net exports.

## Prices and Policies Will Influence Outlook

U.S. farm policy is a major determinant of world prices for soybeans and some other major crops, such as corn and wheat. The prospects for South American soybean exports can be influenced by the relative prices for these commodities. World prices eventually transmit to the domestic prices of foreign nations, but transmission of world commodity prices can be distorted by each nation's farm policies and economic conditions. Therefore, it is important to consider the policies of the soybean-exporting nations in South America, since these policies may partially offset the effect of world prices or delay the response to world price signals. Timing of the response



may also be significantly influenced by supporting credit, transportation, and other service-related institutions.

### *Policies Favor Soybean Meal Exports*

In both Brazil and Argentina, soybean crushers benefit from differential export tax policies - taxing oil and meal exports at a lower rate than exports of unprocessed soybeans. In Argentina, for example, soybean exports are currently taxed at about 15 percent of the f.o.b. or export price, while oil and meal exports are taxed at 3 percent of the f.o.b. export price. As a result of these differential export taxes, domestic prices for soybeans in Argentina run about 15 percent below world or export prices, while domestic prices for soybean meal and soybean oil only run about 3 percent below world prices. Thus, crushing margins in Argentina, based on domestic prices, are higher than what would be indicated by world market prices for soybeans and byproducts.

In recent years Argentine soybean crushing has expanded very rapidly, reducing the availability of raw soybeans for export and increasing the export of soybean meal. Brazil, on the other hand, has relaxed its controls on raw soybean exports. In effect, the soybean and byproduct export policies of Argentina and Brazil are moving in opposite directions. Still, export policies in both nations continue to favor the export of soybean meal over unprocessed soybeans.

Relative crop prices are a major determinant of soybean production in

Argentina. However, even though Argentine wholesale prices in the long run tend to move in the same direction as U.S. prices, price ratios in the short run do not necessarily move in the same direction as price ratios in the United States.

Soybean, corn, wheat, and wheat-soybean double cropping represent four major options for field crop farmers in the fertile lands of the Argentine corn belt--in northern Buenos Aires and southern Santa Fe Provinces. This area accounts for about 45 percent of Argentine soybean production, 35 percent of corn production, and 15 percent of wheat production. In addition, wheat-soybean double cropping is widely practiced in this area; 50-60 percent of Argentine soybean area is double cropped, that is, about 30-40 percent of Argentine wheat area. Thus, Argentine farmers can easily switch to soybean production if warranted by the prices of other field crops.

The correlation with the U.S. crop price-ratios is weak because Brazilian corn and wheat policies complement food security and social welfare goals, whereas soybean and byproduct policies are designed to generate export earnings and industrial development.

Brazilian farm policies have combined with drought to reduce Brazilian soybean production in both 1986 and 1987. In addition, prices for soybeans and products discouraged expansion of soybean area. In contrast, Brazilian policies maintained corn, rice, dry edible beans, and other food crop prices at levels that encouraged farmers to plant these crops for the domestic market instead of soybeans for export. Brazil had the flexibility during 1985 and 1986, to implement these policies because it had improved its balance of payments. In 1985 and 1986, Brazil benefited from falling international interest rates, debt rescheduling, and declining petroleum prices. Brazil's exports grew from US\$20 billion dollars in 1980 to US\$27 billion in 1984, while imports fell from US\$23 billion to less than US\$14 billion.

The decline in the southern soybean areas was partially offset by the more northerly area expansion. Even with the government and world market price disincentives, soybean area continued to expand in central-west Brazil. There, total agricultural area is

U.S. and Argentine price ratios 1/

| Year    | Corn/Soybean |      | Wheat/Soybean |      |
|---------|--------------|------|---------------|------|
|         | Argentina    | U.S. | Argentina     | U.S. |
|         | (percent)    |      |               |      |
| 1980    | 63           | 42   | 83            | 56   |
| 1981    | 57           | 48   | 88            | 62   |
| 1982    | 48           | 46   | 76            | 67   |
| 1983    | 52           | 49   | 49            | 56   |
| 1984    | 64           | 49   | 56            | 53   |
| 1985 2/ | 57           | 51   | 60            | 60   |
| 1986 2/ | 52           | 50   | 64            | 60   |

1/ U.S. prices: No. 1 hard red winter (ordinary protein) Kansas City, No. 2 yellow corn St. Louis, No. 1 yellow soybean Illinois processor. Argentine prices: Buenos Aires wholesale price for wheat corn, and soybeans (converted to \$US).  
2/ Preliminary.

expanding supported by investments in transport. Soybeans are considered better suited to the rainfall patterns than alternative crops.

Policies are expected to increase exports of tradeable commodities in 1988. Renewed emphasis on export earnings from soybeans and byproducts likely will supplant food policy

considerations, due to recent economic difficulties, including a diminishing trade surplus and the burdensome foreign debt.

World prices favoring soybeans are likely to combine with policy changes in Brazil and Argentina that encourage expanded soybean area, accelerating production increases in 1988.

Table 1.--Western Hemisphere: Population, gross domestic product, and foreign exchange holdings 1/

| Country               | Population |       |         | Gross Domestic Product |         |         | Foreign exchange holdings.4/ |          |         |
|-----------------------|------------|-------|---------|------------------------|---------|---------|------------------------------|----------|---------|
|                       | 1985       | 1986  | Change  | 1984 2/                | 1985 3/ | 1986 3/ | 1985                         | 1986     | change  |
|                       | Millions   |       | Percent | Mil. dol.              | Percent | Percent | Million dollars              |          | Percent |
| Mexico                | 79.7       | 81.7  | 2.5     | 173,615                | 2.7     | -3.8    | 4,906.0                      | 3,680.0  | -25.0   |
| Barbados              | 0.3        | 0.3   | 0.4     | 775                    | -0.8    | 2.0     | 137.4                        | 149.1    | 9.1     |
| Cuba 5/               | 10.1       | 10.3  | 0.6     | 26,200                 | 4.8     | 2.5     | 350.0                        | 300.0    | -14.3   |
| Dominican Republic    | 6.1        | 6.2   | 2.8     | 7,837                  | -3.0    | -2.0    | 426.2                        | 376.2    | -11.7   |
| Haiti                 | 5.2        | 5.3   | 1.0     | 1,728                  | 1.0     | 2.0     | 6.3                          | 9.2      | 46.0    |
| Jamaica               | 2.3        | 2.3   | 1.7     | 4,081                  | -5.0    | 1.0     | 161.3                        | 98.0     | -39.2   |
| Trinidad/Tobago       | 1.2        | 1.2   | 1.5     | 3,342                  | -3.1    | -4.0    | 873.5                        | 264.2    | -69.8   |
| Other islands         | 1.6        | 1.6   | 1.5     | 2,162                  | 2.0     | 2.5     | 400.0                        | 420.0    | 5.0     |
| Belize                | 0.2        | 0.2   | 2.0     | 163                    | -3.0    | 1.0     | 12.7                         | 24.3     | 91.3    |
| Guyana                | 0.9        | 0.9   | 1.1     | 588                    | 1.0     | 1.5     | 6.5                          | 9.0      | 38.5    |
| Suriname              | 0.4        | 0.4   | 1.0     | 987                    | 0.0     | -2.0    | 22.6                         | 20.1     | -11.1   |
| Caribbean             | 28.3       | 28.7  | 1.5     | 47,863                 | 1.6     | 1.2     | 2,396.5                      | 1,670.9  | -30.3   |
| Costa Rica            | 2.6        | 2.7   | 3.8     | 4,241                  | 1.0     | 3.0     | 506.4                        | 523.4    | 3.4     |
| El Salvador           | 5.0        | 5.1   | 2.0     | 3,687                  | 1.4     | -0.5    | 179.6                        | 169.7    | -5.5    |
| Guatemala             | 8.3        | 8.6   | 3.6     | 9,795                  | -0.9    | 0.0     | 300.9                        | 362.1    | 20.3    |
| Honduras              | 4.5        | 4.6   | 3.1     | 3,051                  | 1.4     | 2.0     | 105.8                        | 111.3    | 5.2     |
| Nicaragua             | 3.2        | 3.3   | 3.1     | 2,839                  | 2.6     | 0.0     | 180.0                        | 170.0    | -5.6    |
| Panama                | 2.1        | 2.2   | 4.8     | 4,688                  | 3.3     | 3.0     | 85.1                         | 133.9    | 57.3    |
| Central America       | 25.7       | 26.5  | 3.1     | 28,301                 | 0.9     | 1.2     | 1,357.8                      | 1,470.4  | 8.3     |
| Argentina             | 30.7       | 31.2  | 1.6     | 63,024                 | -4.4    | 5.5     | 3,124.0                      | 2,308.0  | -26.1   |
| Paraguay              | 3.9        | 4.1   | 5.1     | 6,309                  | 4.0     | 1.0     | 469.8                        | 365.4    | -22.2   |
| Uruguay               | 2.9        | 2.9   | 0.0     | 6,429                  | 0.5     | 5.0     | 160.0                        | 470.0    | 193.8   |
| Brazil                | 139.8      | 143.3 | 2.5     | 230,043                | 8.2     | 8.0     | 10,604.0                     | 5,803.0  | -45.3   |
| Bolivia               | 6.2        | 6.3   | 1.6     | 5,518                  | -2.1    | -3.7    | 200.0                        | 258.8    | 29.4    |
| Chile                 | 12.0       | 12.3  | 2.5     | 21,521                 | 2.4     | 5.7     | 2,449.6                      | 2,351.1  | -4.0    |
| Colombia              | 29.3       | 29.9  | 2.0     | 32,063                 | 2.8     | 5.3     | 1,595.0                      | 2,556.0  | 60.3    |
| Ecuador               | 9.4        | 9.6   | 2.1     | 11,108                 | 3.2     | 1.7     | 689.4                        | 588.2    | -14.7   |
| Peru                  | 19.7       | 20.2  | 2.5     | 20,465                 | 1.9     | 8.5     | 1,827.0                      | 1,596.3  | -12.6   |
| Venezuela             | 17.3       | 17.8  | 2.9     | 42,694                 | 0.2     | 3.1     | 8,937.0                      | 5,026.0  | -43.8   |
| Andean                | 93.9       | 96.1  | 2.3     | 133,369                | 1.6     | 4.5     | 15,698.0                     | 12,376.4 | -21.2   |
| Latin America         | 404.9      | 414.5 | 2.4     | 688,953                | 3.5     | 3.3     | 38,716.1                     | 28,143.3 | -27.3   |
| Canada                | 25.4       | 25.6  | 0.8     | 326,769                | 4.0     | 3.3     | 1,574.0                      | 2,318.0  | 47.3    |
| Western Hemisphere 6/ | 430.3      | 440.1 | 2.3     | 1,015,722              | 9.8     | 7.8     | 40,290.1                     | 30,461.3 | -24.4   |

1/ Regional totals include only those countries for which data are shown and may not add up because of rounding. 2/ Economic and Social Progress in Latin America, 1986, IDB; and individual country reports.

3/ Estimates of growth in real terms. 4/ International Financial Statistics, IMF, April 1987.

5/ Estimates and forecasts. 6/ Excludes the United States.



Table 2.--Latin America: Indices of total and per capita agricultural and food production 1/

| Country               | Total         |      |      |      |      |      | Per capita  |      |      |      |      |      |
|-----------------------|---------------|------|------|------|------|------|-------------|------|------|------|------|------|
|                       | Agriculture   |      |      | Food |      |      | Agriculture |      |      | Food |      |      |
|                       | 1984          | 1985 | 1986 | 1984 | 1985 | 1986 | 1984        | 1985 | 1986 | 1984 | 1985 | 1986 |
|                       | 1976-78 = 100 |      |      |      |      |      |             |      |      |      |      |      |
| Mexico                | 109           | 115  | 109  | 120  | 122  | 126  | 98          | 96   | 97   | 100  | 99   | 100  |
| Barbados              | 107           | 111  | 114  | 107  | 111  | 114  | 105         | 108  | 111  | 105  | 108  | 111  |
| Cuba                  | 134           | 134  | 126  | 134  | 134  | 127  | 127         | 126  | 117  | 127  | 126  | 118  |
| Dominican Republic    | 113           | 105  | 102  | 120  | 111  | 110  | 93          | 85   | 80   | 99   | 89   | 86   |
| Haiti                 | 110           | 100  | 105  | 109  | 97   | 101  | 98          | 87   | 90   | 97   | 85   | 87   |
| Jamaica               | 98            | 88   | 85   | 94   | 86   | 81   | 91          | 82   | 78   | 88   | 79   | 74   |
| Trinidad/Tobago       | 79            | 80   | 83   | 81   | 81   | 85   | 70          | 69   | 71   | 71   | 71   | 73   |
| Caribbean             | 121           | 117  | 113  | 122  | 119  | 115  | 110         | 104  | 99   | 111  | 106  | 101  |
| Caribbean less Cuba   | 107           | 99   | 98   | 108  | 100  | 100  | 94          | 85   | 83   | 95   | 86   | 84   |
| Costa Rica            | 125           | 106  | 122  | 104  | 107  | 111  | 103         | 84   | 94   | 85   | 85   | 86   |
| El Salvador           | 91            | 89   | 84   | 112  | 108  | 106  | 81          | 78   | 71   | 100  | 94   | 91   |
| Guatemala             | 105           | 104  | 107  | 115  | 117  | 119  | 83          | 80   | 80   | 92   | 90   | 89   |
| Honduras              | 124           | 115  | 108  | 128  | 118  | 108  | 97          | 87   | 79   | 99   | 89   | 78   |
| Nicaragua             | 85            | 77   | 72   | 96   | 88   | 82   | 69          | 61   | 55   | 78   | 70   | 69   |
| Panama                | 123           | 122  | 122  | 120  | 118  | 118  | 105         | 118  | 118  | 102  | 99   | 97   |
| Central America       | 104           | 98   | 99   | 110  | 108  | 107  | 86          | 79   | 77   | 90   | 86   | 83   |
| Argentina             | 123           | 120  | 112  | 126  | 123  | 114  | 109         | 104  | 96   | 112  | 108  | 98   |
| Bolivia               | 104           | 112  | 108  | 103  | 111  | 107  | 87          | 91   | 85   | 86   | 90   | 84   |
| Brazil                | 130           | 145  | 132  | 127  | 139  | 133  | 108         | 118  | 105  | 106  | 113  | 105  |
| Chile                 | 117           | 121  | 128  | 117  | 122  | 128  | 104         | 106  | 109  | 104  | 106  | 110  |
| Colombia              | 122           | 122  | 124  | 123  | 126  | 127  | 106         | 104  | 103  | 106  | 107  | 106  |
| Ecuador               | 116           | 139  | 145  | 118  | 141  | 144  | 94          | 110  | 112  | 96   | 112  | 111  |
| Guyana                | 91            | 87   | 83   | 90   | 85   | 83   | 90          | 85   | 82   | 89   | 84   | 81   |
| Paraguay              | 134           | 152  | 130  | 127  | 145  | 127  | 106         | 116  | 96   | 100  | 110  | 94   |
| Peru                  | 105           | 103  | 101  | 102  | 101  | 98   | 87          | 84   | 79   | 84   | 81   | 77   |
| Suriname              | 145           | 149  | 146  | 145  | 149  | 146  | 141         | 141  | 137  | 141  | 141  | 137  |
| Uruguay               | 102           | 113  | 114  | 99   | 107  | 109  | 99          | 109  | 110  | 97   | 104  | 105  |
| Venezuela             | 120           | 129  | 136  | 123  | 131  | 138  | 97          | 101  | 103  | 99   | 104  | 105  |
| South America         | 125           | 133  | 126  | 124  | 131  | 127  | 106         | 110  | 102  | 105  | 109  | 103  |
| Latin America         | 122           | 127  | 122  | 122  | 128  | 125  | 103         | 105  | 99   | 103  | 106  | 101  |
| Canada                | 110           | 120  | 133  | 110  | 119  | 134  | 101         | 109  | 120  | 101  | 109  | 121  |
| Western Hemisphere 2/ | 120           | 126  | 124  | 121  | 126  | 126  | 103         | 105  | 101  | 103  | 106  | 103  |
| United States         | 109           | 115  | 109  | 110  | 117  | 112  | 101         | 106  | 99   | 102  | 107  | 102  |

1/ Revised data for 1984 and 1985; preliminary for 1986. 2/ Excludes the United States.

Source: Economic Research Service, USDA, Indices of Agricultural Production.

Table 3.--Area and production of selected agricultural products  
by principal Latin American countries or regions 1/

| Commodity<br>by country | Area 2/        |        |         | Production |        |         |
|-------------------------|----------------|--------|---------|------------|--------|---------|
|                         | 1984           | 1985   | 1986 3/ | 1984       | 1985   | 1986 3/ |
|                         | 1,000 hectares |        |         | 1,000 tons |        |         |
| Wheat:                  |                |        |         |            |        |         |
| Mexico                  | 950            | 1,050  | 1,075   | 4,200      | 4,400  | 4,500   |
| Argentina               | 5,950          | 5,296  | 5,100   | 13,200     | 8,500  | 9,000   |
| Brazil                  | 1,800          | 2,800  | 3,900   | 1,900      | 4,300  | 5,600   |
| Chile                   | 471            | 510    | 670     | 850        | 1,150  | 1,600   |
| Uruguay                 | 226            | 240    | 240     | 342        | 300    | 300     |
| Total                   | 9,397          | 9,896  | 10,985  | 20,492     | 18,650 | 21,000  |
| Rice(rough):            |                |        |         |            |        |         |
| Mexico                  | 120            | 192    | 125     | 436        | 747    | 351     |
| Cuba                    | 161            | 159    | 155     | 361        | 341    | 338     |
| Dominican Republic      | 117            | 102    | 85      | 324        | 280    | 228     |
| Haiti                   | 55             | 55     | 45      | 100        | 80     | 70      |
| Costa Rica              | 70             | 70     | 55      | 130        | 151    | 98      |
| Nicaragua               | 45             | 45     | 45      | 81         | 91     | 90      |
| Panama                  | 99             | 100    | 100     | 115        | 125    | 115     |
| Argentina               | 117            | 130    | 125     | 260        | 283    | 275     |
| Brazil                  | 5,000          | 5,800  | 6,200   | 6,120      | 7,000  | 7,140   |
| Colombia                | 364            | 386    | 333     | 1,102      | 1,169  | 1,061   |
| Guyana                  | 95             | 95     | 95      | 180        | 165    | 168     |
| Peru                    | 200            | 190    | 144     | 624        | 483    | 406     |
| Suriname                | 75             | 70     | 75      | 183        | 180    | 183     |
| Uruguay                 | 84             | 90     | 85      | 282        | 312    | 280     |
| Venezuela               | 151            | 181    | 124     | 266        | 307    | 209     |
| Total                   | 6,753          | 7,665  | 7,791   | 10,564     | 11,714 | 11,012  |
| Corn:                   |                |        |         |            |        |         |
| Mexico                  | 6,300          | 6,200  | 6,000   | 9,900      | 10,500 | 10,000  |
| Haiti                   | 200            | 150    | 175     | 186        | 130    | 160     |
| El Salvador             | 243            | 253    | 257     | 521        | 488    | 437     |
| Guatemala               | 706            | 687    | 618     | 1,102      | 1,106  | 1,030   |
| Dominican Republic      | 35             | 60     | 70      | 70         | 100    | 115     |
| Honduras                | 368            | 368    | 324     | 506        | 480    | 500     |
| Nicaragua               | 170            | 170    | 170     | 200        | 200    | 190     |
| Argentina               | 3,025          | 3,350  | 3,100   | 11,500     | 12,100 | 9,500   |
| Bolivia                 | 322            | 350    | 310     | 489        | 540    | 475     |
| Brazil                  | 12,205         | 11,802 | 13,500  | 21,174     | 22,007 | 26,500  |
| Colombia                | 590            | 540    | 592     | 864        | 763    | 788     |
| Paraguay                | 400            | 350    | 400     | 420        | 450    | 530     |
| Peru                    | 390            | 370    | 450     | 776        | 708    | 860     |
| Venezuela               | 313            | 519    | 504     | 609        | 1,198  | 1,100   |
| Total                   | 25,267         | 25,169 | 26,470  | 48,317     | 50,770 | 52,185  |
| Grain sorghum:          |                |        |         |            |        |         |
| Mexico                  | 1,300          | 1,300  | 1,350   | 4,100      | 3,700  | 4,300   |
| Haiti                   | 160            | 120    | 140     | 115        | 75     | 185     |
| El Salvador             | 116            | 114    | 119     | 139        | 133    | 134     |
| Nicaragua               | 50             | 50     | 50      | 100        | 120    | 120     |
| Argentina               | 1,965          | 1,400  | 1,000   | 6,200      | 4,200  | 3,000   |
| Colombia                | 202            | 211    | 227     | 516        | 602    | 600     |
| Uruguay                 | 80             | 100    | 100     | 170        | 213    | 213     |
| Venezuela               | 250            | 250    | 343     | 475        | 516    | 790     |
| Total                   | 4,123          | 3,545  | 3,329   | 11,815     | 9,559  | 9,342   |

Continued



Table 3.--Area and production of selected agricultural products  
by principal Latin American countries or regions--continued 1/

| Commodity<br>by country | Area 2/        |        |         | Production |        |         |
|-------------------------|----------------|--------|---------|------------|--------|---------|
|                         | 1984           | 1985   | 1986 3/ | 1984       | 1985   | 1986 3/ |
|                         | 1,000 hectares |        |         | 1000 tons  |        |         |
| Beans, dry:             |                |        |         |            |        |         |
| Mexico                  | 1,600          | 1,800  | 1,950   | 820        | 1,000  | 1,025   |
| Dominican Republic      | 50             | 45     | 45      | 38         | 34     | 31      |
| Haiti                   | 90             | 80     | 90      | 34         | 26     | 31      |
| El Salvador             | 50             | 50     | 50      | 48         | 34     | 45      |
| Nicaragua               | 50             | 50     | 45      | 60         | 55     | 50      |
| Argentina               | 188            | 185    | 225     | 164        | 200    | 230     |
| Brazil                  | 5,309          | 5,316  | 5,490   | 2,639      | 2,548  | 2,221   |
| Chile                   | 85             | 83     | 90      | 100        | 100    | 90      |
| Paraguay                | 80             | 80     | 80      | 47         | 48     | 30      |
| Peru                    | 55             | 50     | 50      | 48         | 45     | 45      |
| Venezuela               | 62             | 84     | 88      | 30         | 44     | 46      |
| Total                   | 7,619          | 7,826  | 8,203   | 4,059      | 4,199  | 3,844   |
| Potatoes:               |                |        |         |            |        |         |
| Mexico                  | 79             | 81     | 83      | 950        | 975    | 1,000   |
| Cuba                    | 14             | 14     | 15      | 230        | 220    | 230     |
| Argentina               | 105            | 105    | 100     | 2,200      | 2,000  | 2,000   |
| Bolivia                 | 130            | 130    | 125     | 663        | 720    | 670     |
| Brazil                  | 172            | 157    | 160     | 2,221      | 1,989  | 1,834   |
| Chile                   | 90             | 63     | 53      | 1,036      | 909    | 790     |
| Colombia                | 160            | 160    | 156     | 1,980      | 1,980  | 2,091   |
| Peru                    | 160            | 139    | 136     | 1,515      | 1,600  | 1,300   |
| Total                   | 910            | 849    | 828     | 10,795     | 10,393 | 9,915   |
| Cotton:                 |                |        |         |            |        |         |
| Mexico                  | 320            | 213    | 150     | 270        | 211    | 142     |
| Guatemala               | 64             | 66     | 31      | 68         | 53     | 28      |
| Nicaragua               | 110            | 100    | 100     | 62         | 56     | 44      |
| Argentina               | 447            | 320    | 330     | 171        | 119    | 105     |
| Brazil                  | 2,420          | 2,290  | 2,160   | 963        | 830    | 631     |
| Colombia                | 212            | 184    | 166     | 125        | 116    | 111     |
| Paraguay                | 400            | 330    | 275     | 160        | 105    | 86      |
| Peru                    | 140            | 164    | 125     | 100        | 105    | 71      |
| Total                   | 4,113          | 3,367  | 3,337   | 1,919      | 1,595  | 1,218   |
| Peanuts:                |                |        |         |            |        |         |
| Mexico                  | 45             | 40     | 43      | 60         | 55     | 65      |
| Argentina               | 146            | 143    | 168     | 329        | 270    | 310     |
| Brazil                  | 150            | 190    | 160     | 220        | 337    | 218     |
| Total                   | 341            | 373    | 371     | 609        | 662    | 593     |
| Soybeans:               |                |        |         |            |        |         |
| Mexico                  | 350            | 350    | 370     | 600        | 550    | 710     |
| Argentina               | 2,910          | 3,270  | 3,350   | 7,000      | 6,750  | 7,300   |
| Brazil                  | 9,421          | 10,153 | 9,450   | 15,541     | 18,278 | 14,100  |
| Paraguay                | 420            | 550    | 550     | 550        | 950    | 600     |
| Total                   | 13,101         | 14,323 | 13,720  | 23,691     | 26,528 | 22,710  |
| Tobacco:                |                |        |         |            |        |         |
| Mexico                  | 33             | 40     | 46      | 48         | 49     | 69      |
| Cuba                    | 48             | 50     | 50      | 38         | 40     | 40      |
| Dominican Republic      | 25             | 20     | 18      | 22         | 17     | 23      |
| Argentina               | 62             | 53     | 50      | 78         | 60     | 66      |
| Brazil                  | 276            | 264    | 266     | 415        | 411    | 386     |
| Colombia                | 22             | 21     | 23      | 35         | 32     | 28      |
| Total                   | 466            | 451    | 453     | 636        | 609    | 612     |

1/ Includes crops harvested mainly in year shown. Totals are for those countries for which data are shown. 2/ Harvested area insofar as possible. 3/ Preliminary.

Sources: Economic Research Service, Foreign Agricultural Service, USDA;  
Food and Agricultural Organization of the United Nations.

Table 4.--Latin America: Production of selected agricultural products 1/

| Commodity                 | 1984       | 1985   | 1986 2/ | 1,000 tons                      |        |        |
|---------------------------|------------|--------|---------|---------------------------------|--------|--------|
| Crops:                    | 1,000 tons |        |         |                                 |        |        |
| Cassava:                  |            |        |         | Coffee:                         |        |        |
| Cuba                      | 300        | 250    | 250     | Costa Rica                      | 151    | 91     |
| Dominican Republic        | 117        | 118    | 120     | EL Salvador                     | 147    | 147    |
| Haiti                     | 260        | 250    | 250     | Guatemala                       | 162    | 158    |
| Bolivia                   | 200        | 220    | 200     | Honduras                        | 84     | 65     |
| Brazil                    | 21,316     | 23,073 | 25,542  | Nicaragua                       | 48     | 42     |
| Colombia                  | 1,754      | 1,850  | 1,344   | Brazil                          | 1,620  | 1,980  |
| Paraguay                  | 2,000      | 1,900  | 1,900   | Colombia                        | 780    | 660    |
| Peru                      | 363        | 350    | 350     | Total                           | 3,312  | 3,452  |
| Total                     | 26,310     | 28,011 | 29,956  |                                 |        | 2,712  |
| Sugar, centrifugal (raw): |            |        |         | Livestock and poultry products: |        |        |
| Mexico                    | 3,436      | 3,630  | 3,928   | Beef and veal:                  |        |        |
| Cuba                      | 7,780      | 8,100  | 7,250   | Mexico                          | 1,323  | 1,339  |
| Dominican Republic        | 1,190      | 980    | 765     | Cuba                            | 170    | 160    |
| Other Caribbean 3/        | 850        | 870    | 860     | Dominican Republic              | 53     | 60     |
| Central America 3/        | 1,750      | 1,607  | 1,575   | Costa Rica                      | 90     | 91     |
| Argentina                 | 1,535      | 1,160  | 1,120   | EL Salvador                     | 22     | 21     |
| Brazil                    | 8,890      | 8,200  | 8,800   | Guatemala                       | 67     | 55     |
| Colombia                  | 1,283      | 1,267  | 1,217   | Honduras                        | 35     | 40     |
| Peru                      | 626        | 730    | 593     | Nicaragua                       | 45     | 45     |
| Venezuela                 | 396        | 493    | 380     | Argentina                       | 2,558  | 2,740  |
| Total                     | 27,763     | 27,037 | 26,488  | Brazil                          | 2,300  | 2,400  |
| Cottonseed:               |            |        |         | Colombia                        | 647    | 683    |
| Mexico                    | 460        | 355    | 240     | Uruguay                         | 295    | 342    |
| El Salvador               | 42         | 30     | 15      | Venezuela                       | 302    | 324    |
| Guatemala                 | 91         | 74     | 31      | Total                           | 7,907  | 8,300  |
| Honduras                  | 11         | 11     | 11      |                                 |        | 7,931  |
| Nicaragua                 | 1,140      | 140    | 135     | Pork:                           |        |        |
| Argentina                 | 326        | 280    | 165     | Mexico                          | 942    | 865    |
| Brazil                    | 1,400      | 1,895  | 1,500   | Argentina                       | 220    | 225    |
| Colombia                  | 147        | 186    | 219     | Brazil                          | 567    | 600    |
| Paraguay                  | 180        | 270    | 175     | Colombia                        | 115    | 117    |
| Peru                      | 110        | 167    | 142     | Total                           | 1,844  | 1,807  |
| Total                     | 3,907      | 3,408  | 2,633   |                                 |        | 1,969  |
| Cocoa beans:              |            |        |         | Poultry meat:                   |        |        |
| Mexico                    | 42         | 41     | 43      | Mexico                          | 646    | 627    |
| Dominican Republic        | 42         | 39     | 37      | Dominican Republic              | 64     | 66     |
| Brazil                    | 345        | 419    | 459     | Argentina                       | 245    | 240    |
| Ecuador                   | 55         | 128    | 85      | Brazil                          | 1,398  | 1,530  |
| Total                     | 484        | 627    | 624     | Venezuela                       | 360    | 363    |
| Bananas:                  |            |        |         | Total                           | 2,713  | 2,826  |
| Mexico                    | 1,500      | 1,550  | 1,600   |                                 |        | 2,938  |
| Cuba                      | 250        | 220    | 220     | Milk:                           |        |        |
| Dominican Republic        | 318        | 324    | 330     | Mexico                          | 7,706  | 7,197  |
| Costa Rica                | 1,045      | 1,040  | 1,030   | Cuba                            | 950    | 950    |
| Guatemala                 | 500        | 550    | 575     | Dominican Republic              | 389    | 335    |
| Honduras                  | 1,600      | 1,700  | 770     | Argentina                       | 5,200  | 5,300  |
| Nicaragua                 | 180        | 180    | 175     | Brazil                          | 10,800 | 10,400 |
| Panama                    | 620        | 625    | 700     | Chile                           | 910    | 1,046  |
| Brazil                    | 5,550      | 5,700  | 6,000   | Colombia                        | 3,090  | 3,128  |
| Ecuador 4/                | 1,524      | 1,758  | 1,785   | Total                           | 29,045 | 28,536 |
| Peru                      | 449        | 475    | 475     |                                 |        | 29,106 |
| Venezuela                 | 965        | 989    | 1,007   | Eggs:                           |        |        |
| Total                     | 14,501     | 15,111 | 14,667  | Mexico                          | 924    | 995    |
| Coffee:                   |            |        |         | Argentina                       | 175    | 173    |
| Mexico                    | 272        | 255    | 282     | Brazil                          | 500    | 530    |
| Dominican Republic        | 48         | 54     | 47      | Chile                           | 63     | 70     |
|                           |            |        |         | Peru                            | 46     | 45     |
|                           |            |        |         | Total                           | 1,708  | 1,813  |
|                           |            |        |         |                                 |        | 1,909  |
|                           |            |        |         | Wool, shorn:                    |        |        |
|                           |            |        |         | Argentina                       | 165    | 166    |
|                           |            |        |         | Brazil                          | 30     | 30     |
|                           |            |        |         | Uruguay                         | 74     | 90     |
|                           |            |        |         | Total                           | 269    | 286    |

1/ Crops harvested mainly in year shown; cocoa beans and coffee harvest begin in year shown.

2/ Preliminary. 3/ Caribbean includes Belize and Central America does not. 4/ Exportable type only.

Sources: Economic Research Service, Foreign Agricultural Service, USDA;  
Food and Agricultural Organization of the United Nations.



Table 5.--Latin America: Exports of selected agricultural commodities

| Commodity<br>by country        | Exports    |         |         | Commodity<br>by country     | Exports    |         |         |
|--------------------------------|------------|---------|---------|-----------------------------|------------|---------|---------|
|                                | 1984       | 1985 1/ | 1986 2/ |                             | 1984       | 1985 1/ | 1986 2/ |
|                                | 1,000 tons |         |         |                             | 1,000 tons |         |         |
| Wheat:                         |            |         |         | Bananas, plaintains, fresh: |            |         |         |
| Mexico                         | 10         | 5       | 5       | Nicaragua                   | 50         | 50      | 30      |
| Argentina                      | 9,400      | 4,300   | 4,500   | Panama                      | 500        | 690     | 630     |
| Total                          | 9,410      | 4,305   | 4,505   | Brazil                      | 103        | 100     | 100     |
|                                |            |         |         | Colombia                    | 1,030      | 788     | 810     |
| Rice, milled basis:            |            |         |         | Ecuador                     | 974        | 1,200   | 1,400   |
| Argentina                      | 140        | 165     | 145     | Total                       | 5,235      | 5,202   | 5,551   |
| Colombia                       | 24         | 35      | 10      |                             |            |         |         |
| Guyana                         | 47         | 35      | 40      | Cocoa beans:                |            |         |         |
| Suriname                       | 130        | 130     | 140     | Mexico                      | 4          | 2       | 2       |
| Uruguay                        | 190        | 244     | 260     | Dominican Republic          | 38         | 37      | 38      |
| Total                          | 531        | 609     | 595     | Brazil                      | 107        | 172     | 134     |
|                                |            |         |         | Ecuador                     | 48         | 106     | 83      |
| Corn:                          |            |         |         | Total                       | 197        | 317     | 257     |
| Argentina                      | 5,448      | 7,126   | 7,367   |                             |            |         |         |
| Brazil                         | 178        | 0       | 0       | Beef and veal: 4/           |            |         |         |
| Total                          | 5,626      | 7,126   | 7,367   | Costa Rica                  | 22         | 27      | 25      |
|                                |            |         |         | Honduras                    | 18         | 10      | 9       |
| Sorghum:                       |            |         |         | Nicaragua                   | 12         | 10      | 10      |
| Argentina                      | 4,170      | 3,300   | 1,950   | Argentina                   | 250        | 260     | 220     |
| Total                          | 4,170      | 3,300   | 1,950   | Brazil                      | 480        | 530     | 500     |
|                                |            |         |         | Colombia                    | 5          | 2       | 12      |
| Sugar, raw basis:              |            |         |         | Uruguay                     | 120        | 140     | 117     |
| Mexico (Imports)               | (252)      | 93      | 192     | Total                       | 907        | 979     | 893     |
| Cuba                           | 7,016      | 7,100   | 6,500   |                             |            |         |         |
| Barbados                       | 89         | 90      | 99      | Cotton, raw:                |            |         |         |
| Dominican Republic             | 820        | 790     | 455     | Mexico                      | 123        | 77      | 56      |
| Jamaica                        | 157        | 151     | 144     | Guatemala                   | 52         | 50      | 2       |
| Trinidad/Tobago                | 65         | 65      | 65      | Nicaragua                   | 80         | 70      | 38      |
| Belize                         | 94         | 86      | 90      | Argentina                   | 25         | 53      | 12      |
| Costa Rica                     | 103        | 52      | 40      | Brazil                      | 33         | 102     | 37      |
| El Salvador                    | 74         | 110     | 128     | Colombia                    | 27         | 56      | 60      |
| Guatemala                      | 250        | 251     | 338     | Peru                        | 35         | 39      | 38      |
| Honduras                       | 102        | 85      | 105     | Paraguay                    | 89         | 158     | 108     |
| Nicaragua                      | 100        | 70      | 60      | Total                       | 464        | 605     | 351     |
| Panama                         | 82         | 65      | 60      |                             |            |         |         |
| Argentina                      | 150        | 70      | 50      | Tobacco, unmanufactured:    |            |         |         |
| Brazil                         | 1,501      | 1,034   | 874     | Mexico                      | 13         | 9       | 11      |
| Colombia                       | 183        | 294     | 259     | Cuba                        | 5          | 10      | 10      |
| Guyana                         | 206        | 214     | 225     | Dominican Republic          | 15         | 13      | 11      |
| Peru                           | 119        | 95      | 0       | Argentina                   | 25         | 28      | 22      |
| Total                          | 10,859     | 10,715  | 9,684   | Brazil                      | 161        | 170     | 149     |
|                                |            |         |         | Colombia                    | 11         | 11      | 14      |
| Coffee, green or roasted:      |            |         |         | Paraguay                    | 14         | 5       | 7       |
| Mexico                         | 174        | 193     | 208     | Total                       | 244        | 246     | 224     |
| Cuba                           | 9          | 8       | 10      |                             |            |         |         |
| Dominican Republic             | 33         | 36      | 33      | Soybeans:                   |            |         |         |
| Haiti                          | 30         | 20      | 15      | Argentina                   | 3,132      | 2,954   | 2,600   |
| Costa Rica                     | 137        | 77      | 118     | Brazil                      | 1,561      | 3,495   | 1,200   |
| El Salvador                    | 162        | 157     | 134     | Paraguay                    | 430        | 845     | 475     |
| Guatemala                      | 142        | 138     | 155     | Total                       | 5,123      | 7,294   | 4,275   |
| Honduras                       | 74         | 55      | 86      |                             |            |         |         |
| Nicaragua                      | 42         | 37      | 35      | Soybean meal:               |            |         |         |
| Brazil                         | 1,030      | 1,014   | 540     | Argentina                   | 2,663      | 2,600   | 3,150   |
| Colombia                       | 612        | 602     | 640     | Bolivia                     | 25         | 30      | 61      |
| Total                          | 2,445      | 2,337   | 1,974   | Brazil                      | 7,613      | 8,599   | 6,542   |
|                                |            |         |         | Paraguay                    | 56         | 43      | 49      |
| Bananas, plaintains, fresh 3/: |            |         |         | Uruguay                     | 1          | 3       | 2       |
| Guadeloupe                     | 125        | 130     | 130     | Total                       | 10,358     | 11,025  | 9,804   |
| Jamaica                        | 11         | 13      | 21      |                             |            |         |         |
| Martinique                     | 160        | 165     | 165     | Soybean oil:                |            |         |         |
| Windward Is.                   | 137        | 156     | 160     | Argentina                   | 504        | 540     | 620     |
| Costa Rica                     | 1,007      | 800     | 925     | Brazil                      | 929        | 956     | 383     |
| Guatemala                      | 308        | 310     | 330     | Total                       | 1,433      | 1,416   | 1,003   |
| Honduras                       | 830        | 800     | 850     |                             |            |         |         |

1/ Revised. 2/ Preliminary. 3/ Exportable type only. 4/ Carcass-weight basis; excludes fats and offal.  
 Sources: Economic Research Service and Foreign Agricultural Service, USDA;  
 Food and Agriculture Organization of the United Nations.

Table 6.--Latin America: Imports of selected agricultural commodities

| Commodity<br>by country | Imports    |         |         | Commodity<br>by country     | Imports    |         |         |
|-------------------------|------------|---------|---------|-----------------------------|------------|---------|---------|
|                         | 1984       | 1985 1/ | 1986 2/ |                             | 1984       | 1985 1/ | 1986 2/ |
|                         | 1,000 tons |         |         |                             | 1,000 tons |         |         |
| Wheat 3/:               |            |         |         | Bananas, plaintains, fresh: |            |         |         |
| Mexico                  | 345        | 320     | 224     | Argentina                   | 150        | 155     | 155     |
| Cuba                    | 1,200      | 1,300   | 1,300   | Venezuela                   | 130        | 130     | 0       |
| Dominican Republic      | 175        | 230     | 238     | Total                       | 280        | 285     | 155     |
| Haiti                   | 170        | 175     | 185     | Soybeans:                   |            |         |         |
| Jamaica                 | 190        | 200     | 200     | Mexico                      | 1,313      | 1,219   | 827     |
| Trinidad/Tobago         | 115        | 120     | 110     | Dominican Republic          | 12         | 33      | 46      |
| Costa Rica              | 110        | 120     | 113     | Haiti                       | 64         | 32      | 35      |
| El Salvador             | 150        | 153     | 171     | Jamaica                     | 63         | 50      | 47      |
| Guatemala               | 140        | 165     | 123     | Brazil                      | 134        | 428     | 717     |
| Honduras                | 112        | 104     | 103     | Colombia & Peru             | 98         | 143     | 120     |
| Nicaragua               | 50         | 50      | 50      | Venezuela                   | 113        | 138     | 140     |
| Panama                  | 65         | 73      | 87      | Total                       | 1,797      | 2,043   | 1,232   |
| Brazil                  | 4,867      | 3,800   | 1,140   | Soybean meal:               |            |         |         |
| Colombia                | 655        | 697     | 670     | Mexico (U.S.exports)        | 118        | (82)    | (108)   |
| Chile                   | 959        | 450     | 125     | Cuba                        | 212        | 200     | 200     |
| Peru                    | 972        | 1,000   | 1,136   | Dominican Republic          | 81         | 85      | 83      |
| Venezuela               | 977        | 837     | 844     | Chile                       | 31         | 27      | 32      |
| Total                   | 11,252     | 9,794   | 5,819   | Peru                        | 40         | 55      | 73      |
| Rice, milled basis:     |            |         |         | Venezuela                   | 568        | 665     | 463     |
| Mexico                  | 168        | 164     | 75      | Total                       | 1,050      | 950     | 743     |
| Cuba                    | 220        | 220     | 230     | Soybean oil:                |            |         |         |
| Jamaica                 | 50         | 55      | 60      | Mexico                      | 86         | 45      | 40      |
| Trinidad/Tobago         | 50         | 55      | 50      | Dominican Republic          | 37         | 56      | 58      |
| Brazil                  | 23         | 512     | 590     | Bolivia                     | 20         | 20      | 4       |
| Chile                   | 3          | 10      | 32      | Chile                       | 79         | 78      | 1       |
| Peru                    | 48         | 0       | 141     | Colombia                    | 60         | 53      | 34      |
| Total                   | 562        | 1,016   | 1,178   | Ecuador                     | 77         | 50      | 13      |
| Corn:                   |            |         |         | Peru                        | 50         | 34      | 6       |
| Mexico                  | 2,498      | 1,726   | 1,703   | Venezuela                   | 111        | 88      | 44      |
| Cuba                    | 423        | 450     | 480     | Total                       | 520        | 424     | 200     |
| Dominican Republic      | 175        | 185     | 210     | Barley:                     |            |         |         |
| Jamaica                 | 140        | 138     | 121     | Mexico                      | 88         | 5       | 21      |
| Trinidad/Tobago         | 120        | 113     | 100     | Cuba                        | 70         | 80      | 90      |
| Brazil                  | 254        | 965     | 2,380   | Chile                       | 12         | 5       | 1       |
| Chile                   | 36         | 10      | 80      | Colombia                    | 150        | 150     | 22      |
| Peru                    | 115        | 276     | 501     | Peru                        | 29         | 50      | 6       |
| Venezuela               | 1,600      | 1,323   | 2       | Total                       | 349        | 290     | 140     |
| Total                   | 5,361      | 5,186   | 5,577   | Apples:                     |            |         |         |
| Sorghum:                |            |         |         | Mexico                      | 1          | 2       | 2       |
| Mexico                  | 2,747      | 2,255   | 767     | Brazil                      | 90         | 90      | 90      |
| Venezuela               | 347        | 1,949   | 677     | Venezuela                   | 1          | 1       | 0       |
| Total                   | 3,094      | 4,204   | 1,444   | Total                       | 92         | 93      | 92      |
| Sugar, raw basis:       |            |         |         | Pulses:                     |            |         |         |
| Chile                   | 191        | 10      | 4       | Mexico                      | 119        | 145     | 179     |
| Uruguay                 | 5          | 5       | 5       | Cuba                        | 95         | 100     | 100     |
| Venezuela               | 234        | 234     | 124     | Colombia                    | 20         | 20      | 0       |
| Total                   | 430        | 249     | 133     | Venezuela                   | 80         | 95      | 100     |
|                         |            |         |         | Total                       | 314        | 360     | 379     |

1/ Revised. 2/ Preliminary. 3/ Including flour equivalent.

Sources: Economic Research Service and Foreign Agricultural Service, USDA;



Table 7.- U.S. agricultural trade with the Western Hemisphere

| Country                  | U.S. exports to |          |          | U.S. imports from |          |          |
|--------------------------|-----------------|----------|----------|-------------------|----------|----------|
|                          | 1984            | 1985     | 1986 1/  | 1984              | 1985     | 1986 1/  |
| Million dollars          |                 |          |          |                   |          |          |
| Mexico                   | 1,992.6         | 1,439.3  | 1,082.3  | 1,279.4           | 1,445.5  | 2,079.6  |
| Bahamas                  | 70.4            | 90.3     | 120.9    | 4.2               | 3.0      | 1.3      |
| Barbados                 | 32.5            | 29.0     | 29.5     | 7.4               | 11.0     | 1.6      |
| Bermuda                  | 44.2            | 41.1     | 48.8     | 0.1               | 0.0      | 0.0      |
| Dominican Republic       | 167.9           | 173.9    | 169.9    | 458.9             | 378.1    | 391.6    |
| French West Indies       | 6.4             | 4.4      | 4.8      | 0.8               | 0.3      | 0.1      |
| Haiti                    | 72.9            | 72.0     | 74.6     | 38.7              | 24.7     | 17.6     |
| Jamaica                  | 144.9           | 116.2    | 108.3    | 29.9              | 30.5     | 25.8     |
| Leeward & Windward Isles | 58.7            | 50.3     | 56.4     | 7.2               | 6.6      | 8.3      |
| Netherlands Antilles     | 76.6            | 63.5     | 68.6     | 1.5               | 3.1      | 4.5      |
| Trinidad/Tobago          | 131.3           | 109.5    | 89.0     | 11.5              | 5.6      | 7.0      |
| Other Caribbean Islands  | 14.0            | 14.3     | 13.1     | 0.2               | 1.5      | 0.8      |
| Caribbean                | 819.8           | 763.7    | 783.0    | 560.4             | 464.6    | 463.9    |
| Belize                   | 8.6             | 6.8      | 8.0      | 18.4              | 14.3     | 22.9     |
| Costa Rica               | 41.8            | 43.8     | 38.7     | 310.1             | 287.4    | 379.0    |
| El Salvador              | 100.9           | 94.3     | 80.0     | 231.2             | 280.3    | 290.8    |
| Guatemala                | 89.5            | 81.4     | 78.9     | 361.8             | 333.2    | 538.3    |
| Honduras                 | 45.6            | 47.6     | 51.3     | 282.1             | 253.7    | 300.8    |
| Nicaragua                | 15.4            | 4.9      | 0.0      | 47.1              | 34.4     | 0.0      |
| Panama                   | 85.7            | 82.9     | 83.5     | 107.3             | 146.3    | 134.8    |
| Central America          | 387.5           | 361.9    | 340.4    | 1,358.0           | 1,349.6  | 1,666.8  |
| Argentina                | 18.8            | 15.3     | 27.7     | 313.5             | 307.9    | 274.1    |
| Bolivia                  | 24.0            | 27.3     | 36.9     | 6.6               | 12.0     | 7.4      |
| Brazil                   | 508.3           | 470.1    | 566.0    | 2,110.9           | 2,333.4  | 1,832.6  |
| Chile                    | 154.6           | 93.7     | 42.1     | 157.1             | 211.7    | 230.2    |
| Colombia                 | 213.8           | 218.0    | 109.8    | 714.9             | 758.6    | 1,001.7  |
| Ecuador                  | 151.4           | 100.1    | 70.0     | 412.0             | 526.0    | 555.9    |
| French Guiana            | 0.2             | 0.0      | 0.0      | 0.1               | 0.0      | 0.0      |
| Guyana                   | 4.5             | 3.4      | 7.4      | 16.1              | 2.5      | 8.8      |
| Paraguay                 | 1.1             | 1.6      | 1.2      | 27.0              | 17.0     | 24.2     |
| Peru                     | 176.2           | 76.0     | 139.2    | 167.0             | 159.9    | 187.8    |
| Suriname                 | 19.5            | 12.2     | 12.1     | 0.1               | 0.4      | 0.5      |
| Uruguay                  | 7.9             | 2.4      | 9.8      | 20.0              | 13.1     | 19.1     |
| Venezuela                | 782.5           | 638.2    | 455.7    | 32.8              | 36.6     | 61.7     |
| South America            | 2,062.8         | 1,659.3  | 1,478.2  | 3,978.1           | 4,379.2  | 4,203.9  |
| Total Latin America      | 5,262.7         | 4,224.1  | 3,683.9  | 7,174.5           | 7,639.0  | 8,414.3  |
| Canada                   | 1,932.4         | 1,621.8  | 1,552.7  | 1,850.6           | 1,894.1  | 2,018.2  |
| Western Hemisphere 2/    | 7,195.1         | 5,842.4  | 5,236.6  | 9,025.1           | 9,533.1  | 10,432.5 |
| Total World              | 37,804.4        | 29,041.5 | 26,231.1 | 19,324.0          | 19,968.4 | 21,439.7 |
| Percentage of world      |                 |          |          |                   |          |          |
| Western Hemisphere       | 19.0            | 20.1     | 20.0     | 46.7              | 47.7     | 48.7     |

Regional totals may not sum due to rounding.

-- = Not available.

1/ Preliminary. 2/ Excludes the United States.

Sources: Bureau of the Census; Foreign Agricultural Service, USDA.

Table 8.--Canada: Supply and use of crops

| Commodity and year | Area   | Yield   | Production               | Total supply | Total use domestic | Feed use | Net exports | Ending stocks |
|--------------------|--------|---------|--------------------------|--------------|--------------------|----------|-------------|---------------|
|                    | Mil ha | Tons/ha | ----- Million tons ----- |              |                    |          |             |               |
| Wheat              |        |         |                          |              |                    |          |             |               |
| 1984/85            | 13.2   | 1.61    | 21.2                     | 30.4         | 5.3                | 2.0      | 17.6        | 7.5           |
| 1985/86            | 13.7   | 1.75    | 23.9                     | 31.5         | 5.9                | 3.0      | 17.0        | 8.4           |
| 1986/87 1/         | 14.2   | 2.23    | 31.9                     | 40.3         | 6.1                | 2.5      | 21.0        | 13.3          |
| Barley             |        |         |                          |              |                    |          |             |               |
| 1984/85            | 4.6    | 2.25    | 10.3                     | 12.4         | 7.5                | 6.6      | 2.7         | 2.1           |
| 1985/86            | 4.8    | 2.58    | 12.4                     | 14.4         | 7.5                | 6.6      | 3.8         | 3.2           |
| 1986/87 1/         | 5.1    | 2.58    | 15.0                     | 18.4         | 7.7                | 6.8      | 6.3         | 4.3           |
| Corn               |        |         |                          |              |                    |          |             |               |
| 1984/85            | 1.2    | 5.89    | 7.0                      | 8.6          | 6.6                | 5.5      | -.1         | 1.4           |
| 1985/86            | 1.2    | 6.17    | 7.4                      | 9.1          | 6.4                | 5.6      | .6          | 1.8           |
| 1986/87 1/         | 1.0    | 6.13    | 6.1                      | 8.5          | 6.8                | 5.5      | -.1         | 1.6           |
| Rapeseed           |        |         |                          |              |                    |          |             |               |
| 1984/85            | 3.1    | 1.09    | 3.4                      | 3.5          | 1.6                | --       | 1.5         | .5            |
| 1985/86            | 2.8    | 1.24    | 3.5                      | 3.9          | 1.6                | --       | 1.5         | .8            |
| 1986/87 1/         | 2.8    | 1.39    | 3.9                      | 4.7          | 1.7                | --       | 1.7         | 1.3           |
| Flaxseed           |        |         |                          |              |                    |          |             |               |
| 1984/85            | .7     | .99     | .7                       | .9           | .1                 | --       | .6          | .2            |
| 1985/86            | .7     | 1.24    | .9                       | 1.1          | .2                 | --       | .6          | .3            |
| 1986/87 1/         | .9     | 1.22    | 1.1                      | 1.4          | .2                 | --       | .7          | .5            |

-- = not applicable.

1/ 1986/87 data are forecasts.

Source: Statistics Canada and USDA World Agricultural Supply and Demand.

Table 9.--Canada: Supply and use of meats

| Item and year | Beginning inventory | Slaughter | Production | Consumption<br>Total Per cap. 1/ | Imports | Exports | Ending stocks |
|---------------|---------------------|-----------|------------|----------------------------------|---------|---------|---------------|
|               | 1,000 head          |           |            | ----- 1,000 tons -----           |         |         |               |
| Cattle/beef   |                     |           |            |                                  |         |         |               |
| 1985          | 11.0                | 4.3       | 1,020      | 1,020                            | 40.5    | 110     | 113           |
| 1986          | 10.6                | 4.2       | 975        | 972                              | 38.3    | 110     | 115           |
| 1987          | 10.5                | 4.1       | 925        | 940                              | 36.6    | 110     | 115           |
| Hogs/pork     |                     |           |            |                                  |         |         |               |
| 1985          | 11.0                | 14.4      | 900        | 712                              | 25.2    | 20      | 205           |
| 1986          | 10.7                | 14.3      | 890        | 690                              | 27.6    | 20      | 225           |
| 1987          | 10.9                | 14.4      | 900        | 700                              | 26.9    | 20      | 210           |
| Poultry meat  |                     |           |            |                                  |         |         |               |
| 1985          | --                  | --        | 603        | 630                              | 25.0    | 26      | 1             |
| 1986          | --                  | --        | 622        | 647                              | 25.5    | 34      | 1             |
| 1987          | --                  | --        | 650        | 665                              | 26.5    | 30      | 1             |

-- = not available.

1987 data are forecasts.

1/ Kilograms.

Source: Statistics Canada and USDA World Agricultural Supply and Demand.



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